NORTH REGION

EMS & Trauma Care Council

Island, San Juan, Skagit, Snohomish and Whatcom Counties

FY 04-05 Biennial

EMS and Trauma Care System Plan

In Cooperation With the Washington State Department of Health
Emergency Medical Services & Trauma Care System

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Appendix B: North Region Native American Tribes

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These will not be included as part of the Regional Plan, unless specifically requested.

- Appendix C: Council Operative Policies
- Appendix D: Patient Care Procedures & County Operating Procedures
- Appendix E: Quality Improvement Plan
- Appendix F: Trauma Care Related RCS & WAC

I. AUTHORITY

A. RCW 70.168.015(7): "Emergency medical services and trauma care system plan: means a statewide plan that identifies state-wide emergency medical services and trauma care objectives and priorities and identifies equipment, facility, personnel, training and other needs required to create and maintain a state-wide emergency medical services and trauma care system. The plan also includes a plan of implementation that identifies the state, regional and local activities that will create, operate, maintain and enhance the system. The plan is formulated by incorporating the regional emergency medical services and trauma care plans required under this chapter..."

B. EMTP Mission: To establish, promote and maintain a system of effective emergency medical and trauma care services. Such a system provides timely and appropriate delivery of emergency medial treatment for people with acute illness and traumatic injury, and recognizes the changing methods and environment for providing optimal emergency care throughout the state of Washington.

C. North Region EMS & Trauma Care Council Mission: The mission of the North Region EMS & Trauma Care Council is to promote a coordinated region-wide system. The System shall provide quality, comprehensive, and cost effective emergency medical and trauma care to individuals in Island, San Juan, Skagit, Snohomish and Whatcom counties.

North Region EMS wants to continue their work in cooperation with the Washington State Department of Health with the development of an efficient trauma care system that delivers the “right” patient to the “right” facility in the “right” amount of time, that is cost effective, and assures appropriate and adequate patient care, that prevents human suffering and reduces the personal and societal burden of the results from trauma.

II. INTRODUCTION

A. Summary of proposed changes within this Regional Plan:

The *North Region Emergency Medical Services and Trauma Care Council* requests **no changes** to the following elements of the Regional Plan:

- Recommended number of Department-approved verified prehospital providers
- Recommended number, and level of Department-designated trauma services and rehabilitation services
- Patient Care Procedures
- Adopted Council Standards

C. Executive Summary

North Region is located in the northwest corner of the state and includes Island, San Juan, Skagit, Snohomish, and Whatcom Counties. The Region has unique geographic characteristics, which includes an international border with Canada, contiguous ocean waterfront along the far west side of all five counties, with one county that fully consists of a large grouping of islands. The Region accommodates the largest building in the world, the Boeing Company, and has two U.S. Navel compounds (Everett and Oak Harbor) and eight Native American Indian tribes. The North Region EMS & Trauma Care Council (North Region EMS) addresses the continuum of EMS and trauma care from access to 911, through prehospital and hospital components, and system evaluation and prevention.

As in many regions throughout the state, the North Region continues to grow at a rapid rate, ever challenging the EMS and Trauma Care System to provide timely and effective service. These service challenges stress the regional resources for 1) response, 2) treatment and 3) financial capabilities. Increasing public demands for rapid, quality services are in contrast to increasing elusive funding resources to support public health and safety.

The North Region has started participation in regional Native American Indian tribe/council meetings that meet quarterly to pass on pertinent information to the tribal leadership regarding injury prevention programs in the North Region, as well as other programs managed by the Council. It is the desire of the Council to develop better communication with the regional tribal community.

Section III - Injury Prevention and Public Education

Injury Prevention and Public Information (IPPE) is an essential and valuable component of regional planning. The Council recognizes that this segment in the *Continuum of Care* has the capacity to make a difference in reducing death and disability. Further, the Council believes that through the building of self-sustaining community networks, as well as pooling regional resources, including tools, expertise and experience, the region can help build an infrastructure to collectively reduce the region's high-risk areas of traumatic injury and death.

Over the past three years, the North Region Council has assisted with the implementation of two SAFE KIDS chapters, in Snohomish and Skagit counties, and recognizes the value of continuing to build and support this specific type of community network and program. It is the goal of the North Region to assist with the building of SAFE KIDS chapters in Island and Whatcom counties and eventually, San Juan County. SAFE KIDS programs focus on preventing unintentional injuries in children 1 – 14 years of age.

Although this prevention network is focused on kids, there are chapters in the State that have agreed to focus on elderly falls prevention programs such as *"Visiting Grandmothers House"* and *"Tread to Safety"*. Because SAFE KIDS chapters are made of variety of prevention leaders in the community, these same people are often involved in senior prevention activities as well. Although the SAFE KIDS chapters in the region currently do not focus on elderly falls prevention, it is something that will be presented for consideration in the near future.

The Regional Council also provides mini-grants for injury prevention programs and activities in the region, and funds and directs SAFE KIDS coalition, Safety Restraint Coalition (car safety seats), and "Protect Your Brain" (helmets) programs. The North Region Council also plans to make this mini-grant opportunity available to the eight Native American Indian Tribes/Councils in the Region during this next biennial planning period.

Section IV – Prehospital

***Communication*:** The Pre-Hospital Committee will review all types of Communication issues during this biennium. The Council plans to invite the dispatch leadership from all five counties as regional council members to provide on-going input, as well as participate with all communication issues, including agency-to-agency, hospital-to-hospital and actively participate in the development of a state-wide communication system. The Council plans to build closer relationships with dispatch agencies to provide better understanding of the needs of the response community and the special challenges of dispatchers regarding personnel retention and burnout, as well as meeting a consistent standard of training. The Council plans to annually promote both EMD and CBD training with the dispatch agencies in the North Region.

Medical Direction of Prehospital Providers: The Region's system of Medical Program Direction is operating successfully. However, it is a goal of the North Region to continue to pursue avenues of evaluation and improvement of EMS providers. The Council would like to strengthen the roles of the MPDs in the Region to improve system operations. MPDs, although dedicated to their duties, have limited time to devote to regional meetings. Limited funding and heavy patient loads contribute to this situation. The Council plans to identify ways to be more considerate and efficient with the use of MPD time. With the leadership of the MPDs, the Council would like to improve communications between counties and intra-agency relationships, as well as strengthening provisions of oversight for

BLS. It is also the goal of the MPDs to identify efficient and effective ways for sharing and augmenting training resources for paramedics.

Prehospital EMS and Trauma Services: Turnover of volunteers is having a significant impact on the numbers of people that requires training and there is a cost associated with that. Changes in SEI requirements are going to restrict the available pool of SEI's. This will create a substantial cost increase, scheduling difficulties and reduce available training.

Verified Aid and Ambulance Services: There are 85 verified agencies in the North Region. There is a need to complete a Need and Distribution of Services document this year for all five counties. Prehospital agencies need to identify their needs in equipment, training, and communications. Minimum/Maximum recommendations for verified services are provided at the end of this section.

Patient Care Procedures (PCPs) and County Operating Procedures (COPs): The North Region needs to review existing PCPs and revise or expand as appropriate, as well as review COPs and make available on the North Region website. The North Region would like county COPs to be reviewed at Regional Council meetings.

Multi-County or County/Inter-Regional Prehospital Care: There is a need to assess mutual aid agreements for multi-county and or county/inter-regional prehospital patient care. The Regional Council would like each county EMS/TC councils to review and revise mutual aid agreements at least every other year. This will be the year to assess the needs of mutual aid outside of county and regional boundaries. The North Region borders British Columbia and needs to develop a written mutual aid agreement for the transport of patients between the borders.

Section V - Designated Trauma Care Services

Definitive Care is provided by nine hospitals/clinics in the region that are committed to meeting the standards of designated trauma services. The Regional Council provides a forum for networking between the facilities through a Trauma Facility/Hospital and QI committees. The two groups work closely with the Executive Board and the Regional Manager on system planning and implementation and advise the Council on hospital trauma training needs, the number and levels of designated trauma services needed in the region, quality improvement models, and other issues. Recommendations are made to the Council. And even with direct budget cuts to the Region's contract with DOH, the Council will continue to provide grants to hospital and clinic nurses and physicians for adult and pediatric trauma education.

Section VI - Data Collection and Submission

Available local and State data resources are utilized for data collection and evaluation. These resources include, but are not limited to: 1) State Trauma Registry, 2) Comprehensive Hospital Abstract Reporting System (CHARS), 3) Washington State Department of Health, Center for Health Statistics, 4) run data from local EMS providers and 5) data from county EMS councils.

Section VII - EMS & Trauma System Evaluation (Quality Assurance Programs)

Data reports using specific filters and focused case reviews are presented at quality improvement meetings throughout the year, in a confidential setting. Prehospital training topics are sometimes recommended by the committee, based on areas of need highlighted by a type of call or geographic setting. Members report back on issues that need follow-up at subsequent meetings. Other local, state and national data sources are admitted whenever applicable and available.

The North Region has directs effort to have all prehospital transport agencies collect data (MIR - Medical Incident Report) and report to receiving hospitals that, in turn, submit data to DOH through their normal process. In the past, the North Region has implemented a prehospital non-transport data collection program to enhance data collection using a data short form and classifying all patients. The data short was form was used to pass through initial data points to reporting trauma facilities as the systems goes through a reporting transition period. In many areas of the Region, a modified short form is still being utilized. The collected and submitted data will be used to determine the need for system modification. A regional quality improvement program that includes agency, county, and regional components analyzes data and makes recommendations to the Regional Council.

The North Region EMS & Trauma Care Council is committed to the development, implementation, and maintenance of the systematic approach to EMS and trauma patient care.

III. INJURY PREVENTION & PUBLIC INFORMATION/EDUCATION

A. Regional IPPE Program

1. Issues/Needs/Weakness Summary

Regional Infrastructure

There is a need in Injury Prevention and Public Information/Education for the continuation of providing both funding and administrative support for activities that build program infrastructure and networking that support injury prevention programs for high-risk injury groups on both region-wide and local levels. It is necessary to strategically sustain and create community programs that support the high-risk injury groups as identified from the statistical information gathered by the Washington State Department of Health. Within the leadership groups of local community agencies, it will be essential to build a strong regional injury prevention infrastructure. Regional leadership is key to successfully utilize the limited resources available for prevention activities, as well as the great benefits of synergistic thinking and action.

IPPE Committee Building

The North Region currently does not have an active prevention committee or formal planning session to review, analyze and prioritize Injury Prevention activities. Although a Projects Coordinator has successfully managed injury prevention activities in the past, there is a need to have a cooperative region-wide focus on the most critical fatal and non-fatal injury components that have affected the region, with region wide dynamics and synergy, rather than a sprinkled approach. The goals of the Region are to reduce duplication of efforts and maximize results.

For example, currently there are several active prevention groups in the region that have individually focused on Falls Prevention, especially among the elderly. Ideally, the North Region would like to review these programs and implement a region-wide focus concerning Falls Prevention, as well as other high-risk prevention activities that are identified as needed in the region.

With the participation of agencies that are fairly well funded or have, over time, developed successful prevention programs, the North Region would contribute both funding and staff support to assist with bringing these successful programs to other agencies and other areas of the region. By having professional key people reviewing the successful activities that are in place in the region, other areas that are challenged with funding for both staffing and resources would have an opportunity to duplicate some of the efforts and strategies of other communities, without the full impact of the cost associated with initial planning and implementing. Eventually there will be prevention programs focusing on the other identified high-risk groups.

SAFE KIDS In Island County and Whatcom County

The North Region also believes that assisting in the building of community prevention networks will be the most efficient way to promote and maintain viable injury prevention programs. The agency to spark this kind of network building is through an alliance with the Washington State SAFE KIDS Coalition.

Currently, SAFE KIDS chapters have been developed in two of the five counties in the Region, Snohomish County (2000) and Skagit County (2002). These chapters have been very successful in pulling together an assortment of prevention professionals (fire department, sheriff's department, principals, health department, day care centers, hospitals, council members, chamber of commerce members, media representatives, local businesses) to discuss prevention programs.

Implementing SAFE KIDS chapters in Whatcom and Island counties is the best way to build the infrastructure needed to sustain a long lasting prevention network. Having members of the local community promote prevention activities brings the "from the heart" aspect into the program that is needed for great success.

The Region plans to coordinate and support injury prevention activities in San Juan County, however does not plan to actively develop a SAFE KIDS program at this time. Because of the geographic challenges, the Region would like to development an assessment for the need and interest in this program.

Ultimately, building injury prevention infrastructure is key to a successful Regional injury prevention program. The sprinkled approach has been successful in the past because it has achieved an overall "awareness of injury prevention" in many communities, but not all. Now is the time to focus on key areas that have been defined as high-risk to our region. With the formation of an Injury Prevention Committee, supporting the building of two additional SAFE KIDS chapters in the region, as well as maintaining a source to obtain and share information through the North Region website, www.northregionems.com, the North Region believes that the high-risk injury areas can be addressed with much more vitality.

North Region Injury Data of High-Risk Focus Areas

North Region high-risk groups include fatal injury in motor vehicle trauma, poisoning, falls and drowning, as well as non-fatal injuries that include hospitalization that highlight falls, motor vehicle trauma and poisoning. Once the Injury Prevention Committee has been organized, they will be tasked begin to look at high-risk groups to develop or support appropriate prevention programs. In the meantime, the North Region is assessing injury prevention programs currently being managed by other agencies in each county. It is the desire of the North Region to gather pertinent regional data to better track activity and results.

Washington State Department of Health Injury Prevention Program statistics reveal from 1997-2001 throughout the North region area there were:

Rank	Fatal Injury		Rank	Non Fatal Injuries Hospitalization	
	Unintentional			Unintentional	
#1	440	MVT – Occupant	#1	11,512	Falls
#2	299	Poisoning	#2	2,038	MVT -Occupant
#3	259	Falls	#3	1,034	Poisoning
#4	84	Drowning	#4	657	Struck By or Against

Regional Falls Prevention Focus

Injury falls among seniors are a priority and concern in the North Region because they are relatively common, produce considerable morbidity and mortality, have a high cost to society, and are potentially preventable. Because the cause of falls with the elderly are often multi-factorial, strategies that successfully reduce falls generally require identifying an appropriate at-risk group and intervening with a multidimensional approach that addresses the pertinent individual risks.

Some evidence suggests that seniors at greater risk benefit the most from interventions designed to reduce falls. Elderly individuals that have previously fallen, have an increased risk of recurrent falls, fracture, nursing home placement, and death. In addition, fear of falling results in functional limitation that adversely affects their quality of life.

Falls injuries are the single leading non-fatal injury in the North Region. Falls are particularly hazardous to the elderly. The elderly population has increased substantially, along with their life expectancy. This reinforces the significant need for a focused regional falls prevention program.

Many communities in the Region attract a senior population as a place for retirement; and there are several of these communities that have successful Fall Prevention programs in place. Probably the most successful in the region is in the City of Anacortes, which is a very large retirement community. Island Hospital has implemented a program that assists seniors by providing home safety inspections and installations of risk reduction devices, as well as education regarding methods to reduce falls. Island Hospital has also produced an educational video, fully funded by a North Region Mini Grant, on Falls Prevention that can be used throughout the Region.

Once a Regional Injury Prevention Committee or Regional Focus Group is in place, the North Region office will concentrate on a Regional Falls Prevention Program. The North Region office will solicit the committee from the pool of falls prevention advocates that have already been involved in the development of successful programs, as well as those individuals that have the desire to implement the program in their communities and need assistance and available resources. By pooling both resources and program knowledge and experience, the North Region office will be able to coordinate a more focused approach to this leading injury with seniors. Eventually, the Committee will focus prevention programs on other high risks groups as well.

Native American Indian Tribe/Council Participation in IPPE

There are eight Native American tribes/councils in the North Region. The North Region tribes include the Lummi Nation (*Bellingham*), Nooksack (*Demming*), Sammish (*Anacortes*), Sauk-Suiattle (*Darrington*), Stillaguamish (*Arlington*), Swinomish (*La Conner*), Tulalip (*Marysville*) and the Upper Skagit (*Sedro Woolley*). It is the desire of the Council to initiate regular communications with regional tribal leadership regarding injury prevention programs available in the North Region, as well as other programs such as regional emergency preparedness planning.

2. IPPE GOALS:

GOAL #1: Strong Regional IPPE infrastructure results in community awareness of high-risk injury groups reduced duplication of efforts and maximized results.

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Objective #1 (FY 04-05 Biennium): Develop a Regional Injury Prevention Committee to review, analyze and prioritize injury prevention activities.

- ***Strategy #1:*** Identify community prevention leadership in each county. Pull contact information from the lists of regional mini-grant recipients, SAFE KIDS leadership, hospital trauma coordinators, hospital data collectors, medical service officers (MSO) at local fire stations, Native American Indian clinic leaders, etc. with the development of a Regional Injury Prevention Data Base.

- **Strategy #2:** Utilize Regional Injury Prevention Committee to identify duplicated prevention efforts in order to reduce duplication and maximize results.

- ***Strategy #3:*** Query other regional IPPE coordinators regarding their identified mission, structure, roles and responsibilities and activities in their region to use as a starting point for the development of a North Region IPPE Committee. Create a Regional IPPE Binder by region for reference, as well as including the IPPE planning section of each Regional Trauma Plan for FY 04/05 (to be obtained from the DOH EMS/TS web site).

- ***Strategy #4***: Present this proposal to the North Region EMS & Trauma Care Council membership at meeting in the first half of 2004 and obtain the approval of the council to form this committee.

- ***Strategy #5*** Put together a packet of information regarding the North Region EMS & Trauma Care Council, regional injury prevention statistics of high-risk groups and regional goals as outlined in the regional trauma plan. Also provide a cover letter with a time-line of immediate business and date of first meeting. Mail this packet out to identified prevention leadership.

- ***Strategy #6:*** Follow up by phone with potential members from each county, making an effort for equal representation from each county and set a date to meet.

- ***Strategy #7:*** In the event that forming a committee is not enthusiastically responded to, the regional office will plan and facilitate an all day "Regional IPPE Symposium" with speakers from throughout the region gathered to focus on high-risk aspects of injury throughout the region, including falls prevention. We would invite other speakers from the State DOH and from the State SAFE KIDS Coalition. From this gathering of prevention specialists, we would form specific focus groups, thereby not placing a burden for participants to regularly participate in a broad based regional injury prevention program.

Projected Costs: Includes administrative staff time and associated costs. It is estimated that the costs could be roughly $3,000.

Barriers: The North Region has gone through several transitions of staff over the past several years. Relationships in the prevention community are beginning to redevelop with the new regional leadership. However, initially there may not be a considerable response of interest in committee membership because there hasn't been adequate time to develop and rebuild basic relationships and promote regional involvement.

In both Snohomish and Skagit counties, there is an existing injury prevention network with SAFE KIDS. This is very positive for the community and the region. Many participants from this committee probably would be candidates for membership of a Regional IPPE Committee. Asking these participants to schedule yet another meeting may not be enthusiastically responded to.

Activity Measurement: Measurable development of community and regional infrastructure.

Objective #2 (July 15th 2003 – June 15th 2005): With both Regional and State partners implement SAFE KIDS chapters in Island and Whatcom Counties.

- ***Strategy #1*:** With the assistance of Washington State SAFE KIDS leadership, begin facilitating coalition building for Whatcom County, which includes the bringing together of interested parties to review the structure, expectations and benefits of an alliance with SAFE KIDS. A handout tool "Coalition Start-Up Kit", which outlines a basic step-by-step process to start a SAFE KIDS chapter, will be handed out.

- ***Strategy #2:*** Identify the lead agency and coalition leader to help develop a basic SAFE KIDS steering committee. The lead agency and coalition leader will be responsible for absorbing some of the financial costs such as postage, long distance phone calls, and providing a meeting place and administrative support, as well as providing a strong commitment to implement safety programs in the community.

- ***Strategy #3*:** Regional office to assist the Steering Committee with the development of community support, networking to build a broader volunteer base and collaboration with other community groups.

- ***Strategy #4:*** Assist the Steering Committee to impact and unify their community for child safety. The coalition will gain credibility and support among the local community once they realize the extensive base of support for the coalition.

- ***Strategy #5:*** Assist the Steering Committee to organize and share responsibilities, as well as orient and educate new members on the local community coalition concept, and the goals and objectives of the Washington State SAFE KIDS organization. Communicate activities and information to coalition members via meetings, minutes of meetings and possibly a newsletter.

- ***Strategy #6:*** Encourage the Steering Committee to obtain media coverage by inviting media representatives to events. (WA Sate SAFE KIDS provides "ready made" press releases for statewide events and safety tips throughout the year, which can be personalized for the local coalition.

- ***Strategy #7:*** Assist the Steering Committee with a "kick-off" event that invites key community leaders and agencies, to include leaders of community agencies and public services, local legislators and commissioners, community volunteers, lead agency members and print, radio and television media.

- ***Strategy #8:*** Encourage and assist the Steering Committee to collect local community injury data. Credibility is gained by making fact-based decisions on what injury prevention programs to bring to the community.

- ***Strategy #9:*** Encourage and assist the Steering Committee to evaluate each program implemented by recording the number of people reached, the age groups, the purpose and goal of the program, as well as documenting a list of other organizations partnered with, safety equipment distributed, number of pieces of equipment distributed, and recipients of safety equipment.

- ***Strategy #10:*** Duplicate this strategy to build a local community SAFE KIDS chapter in Island County.

- ***Strategy #11:*** Assess the need and interest for a SAFE KIDS chapter in San Juan County.

Projected Costs: Includes administrative staff time and associated costs. It is estimated that the costs could be roughly $5,000 per County.

Barriers: Whenever a new project or program is developed, there is customarily a significant amount of time and effort and motivation necessary to make it happen to build a base of committed participants. The biggest barrier will be finding someone in the Steering Committee that is passionate and focused to take the lead in the building of a SAFE KIDS chapter. The Regional office wants to assist in every way possible, but can't provide the level of commitment it takes for success.

Activity Measurement: Monitor and document the accomplishment of each strategy as listed above. Ultimate activity measurement will be the development of self-sustaining SAFE KIDS chapters in Whatcom and Island counties.

GOAL #2: Reduce premature death and disability due to injury among high-risk groups.

Objective #1 (July 15th 2003 – June 15th 2004): Continue the mini-grant program that provides seed money for new injury prevention programs being developed that focus on community education, as well as support the continuation of programs that show great capability to reduce incidence of injury among high risk groups.

- ***Strategy #1:*** Submit mini-grant applications to prevention providers in the North Region by October 31st 2003 requesting prevention agency to submit their application by December 1st 2003.

- ***Strategy #2:*** Announce recipients of mini-grants by December 31st 2003. Mini-grant funding awards will range from $500 to $1,500.

- ***Strategy #3:*** Request mini-grant follow-up report with invoices submitted to North Region no later than June 15th 2004.

- ***Strategy #4:*** Evaluate success of Mini-Grant program and submit report to Regional Council.

Projected Costs: $15,000 has been budgeted for this mini-grant. Additional costs would include staff time and associated expenses to be approximately $1,500, for a total of $16,500.

Barriers: The North Region has budgeted $15,000 for mini-grants, limiting the number of grant awards available to agencies in need of support.

Activity Measurement: Fully assess the FY 02/03 mini-grant program for results of informational awareness and education to the high-risk children and adults by traumatic injury category. Begin to build a yearly review of accomplishments provided by the funding by high-risk category. Attempt to tie in the grant applications with regional goals. Ultimate measurement will be the complete grant cycle completed by June 30, 2004.

Objective #2 (July 2003 – June 2005): Maintain an information sharing and education platform, using the North Region website at www.northregionems.com for potential grant opportunities, website resources for high-risk injury groups, calendar of events, etc.

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- ***Strategy #1:*** Continue to maintain and improve current data on the region website, including educational information regarding injury among high-risk groups.

- ***Strategy #2:*** Work with the SAFE KIDS Chapters to encourage a "Regional Calendar" of events, as well as other pertinent information, supporting the infrastructure of coalition building and coordination of activities.

- ***Strategy #3:*** Update website with potential grant opportunities to include Rural AED Grant Information, Injury Prevention Mini-Grants, EMS Needs Grants, WSTSC DUI Grant activity, etc. By regularly providing this information, the region expects to have more participation on a variety of levels.

Projected Costs: Includes time to maintain and develop website. The Region has budgeted $300 per month to maintain and build the site. The regional office hires a Webmaster to update the website, as needed. The current Webmaster is teaching the region staff, as well as interested Committee Chairs the HTML EZpad 3.0 software used on the website.

Barriers: Lack of training and time, as well as limited funding. The North Region staff is currently not trained in HTML. Although there are preliminary efforts for training, it has been inconsistent due to other activities required in the day-to-day activities in the office. The time it takes to assess information, design a format to present information can also be a barrier at times. Before information is uploaded, it takes concentrated time to fully evaluate the layout and presentation of the information. The purpose of putting information on the website is to provide information to more people, but also to refer people there to "answer all their questions". So, the information needs to be fully developed and organized to do this. The North Region has budgeted a small amount of funding for a Webmaster.

Activity Measurement: The region website has the ability to measure the usage of the website and will keep records of activity. The best measurement is that membership within the region use the website as a regular tool for information.

Objective #3 (July 15th 2003 – June 15th 2004): Community education forums will be coordinated through the Hospital Facilities Committee and through local county EMS Fairs and Conferences, as well as through local SAFE KIDS chapters.

- ***Strategy #1*:** Continue to provide funding and support to county coalitions that focus on high-risk injury education.

- ***Strategy #2*:** Provide CME credit to physicians and EMS first responders that participate in education forums facilitated by the Regional Hospital Facilities Committee or local EMS councils.

- ***Strategy #3*:** Continue to provide education materials to local county safety fairs to highlight high-risk injury in the community.

Projected Costs: Currently**,** this cost is unknown. The North Region office is developing a list of regularly scheduled safety fairs, etc. to anticipate the number of possible events. Staff times and possibly travel expenses for mileage, as well as possibly funding for speakers and promotional materials would need to be considered. A rough estimate could easily range from $2,500 - $5,000.

Barriers: The primary barrier is staff time to devote to this goal and limitations in funding. It is the intention of the regional office to provide support and a presence in each of the five counties.

Activity Measurement: Community education activity that reaches all five counties throughout the planning period.

GOAL #3: North Region supports on going and new injury prevention activities.

Objective #1 (July 15th 2003 – June 15th 2005): Increase the correct usage of child passenger safety seats in all five counties in the region.

- ***Strategy #1*:** Continue to provide funding and support to county coalitions that focus on education of and the appropriate use of child passenger safety seats.

- ***Strategy #2:*** Participate in county car passenger seat safety installations.

- ***Strategy #3:*** North Region staff to receive certification training for car passenger safety installations.

Objective #2 (July 15th 2003 – June 15th 2005): Increase the correct usage of bicycle helmets in all five counties of the region.

- ***Strategy #1:*** Continue to provide funding and support to county coalitions that focus on education of and the appropriate use of bicycle helmets.

- ***Strategy #2:*** Participate in community safety fairs, assisting in the appropriate use of bicycle helmets.

Projected Costs for Goal #3: Staff time and possibly travel expenses for mileage, as well as funding for Mini-Grants to purchase car seats and bicycle helmets. Time taken to support car passenger safety installations, as well as becoming certified would be considered. This could easily cost $2,000 to have staff trained, as well as on-going support of county agencies, which is estimated to be approximately $1,00.00 per county per year for staff time and travel. Estimated cost is $7,000.

Barriers: The primary barrier is staff time to devote to this goal. It is the intention of the regional office to provide support and a presence in each of the five counties. Because of time barriers, the regional office will aim to participate at least bi-annually in each county.

Activity Measurement: The recording of car seat clinics and community safety fairs that provide information and education on the correct use and fitting of cars seats and bicycle helmets throughout the five counties of the Region. Eventually evaluate the frequency and effectiveness of activities in the five counties.

Objective #3 (January 2004 – June 2005): Develop a Falls Prevention program on a regional level for all age groups, but specifically for the elderly.

- ***Strategy #1:*** Query all eight hospitals in the region to assess current falls prevention programs, including resources available such as videos, photographs, PowerPoint presentations, etc

- ***Strategy #2:*** Work with the data provided by the Washington State Department of Health to develop a detailed report on the region's falls statistics, by county. Research if there are other available resources available. Upload this information to the region's website.

- ***Strategy #3:*** Organize a regional information packet, presenting the assessment of information gathered and the programs and resources available in the North Region.

- ***Strategy #4*****:** With the support of the newly developed Regional Injury Prevention Committee, schedule a meeting to discuss falls prevention programs and resources in the Region, as well as other falls programs throughout the state. Make available the information packet for participants to review.

- ***Strategy #5*** Identify how to help each other out to be more efficient with the resources available in the region, as well as specifically identifying how the North Region office can be supportive to the falls program.

- ***Strategy #6:*** Report on the region's statistics and approaches to improving falls prevention activities and upload this information to the region's website. Identify the key players for falls prevention on the website.

Projected Costs: Staff time and associated costs are estimated to be $3,000.

Barriers: The primary barrier is staff time to devote to this goal. It is the intention of the regional office to provide support for this very important high-risk area and to provide educational resources to communities that want to further develop their falls prevention program. Eventually, this program could become funding challenged because part of the program includes the providing of home safety inspections and installations of risk reduction devices, as well as education regarding methods to reduce falls.

Activity Measurement: Systematically develop strategies. The program's real success will be measured by a notable decrease in the rate of falls per 100,000 resident populations within the North Region by the end of 2005.

IV. PREHOSPITAL

A. Communication

1. Issues/Needs/Weakness Summary

a. Public Access:

Enhanced 911
Primary public access within the North Region utilizes the Enhanced 911 (E911) system, identifying the caller's location and registered name, which is utilized with the CAD (Computer Aided Dispatch) system to provide system response. Calls are routed to primary Public Safety Points (PSAPS) based on the police jurisdiction where the caller is located. 911 Centers are directly accessible throughout the Region from standard telephones, pay phones and very recently cellular phones. E911 is available in all five (5) counties within the Region.

County Communications Operations

Island	One central dispatching service includes police, fire, and EMS. I-COM provides E-911 for the county.
San Juan	One central dispatching service through the Sheriff's department on San Juan Island provides E-911 for the county.
Skagit	A consolidated communication center provides E-911 for the county.
Snohomish	Three communications centers - SNOPAC dispatches 62% of calls - SNOCOM dispatches 34% of the calls - Marysville dispatches 4%, and together, provide E-911 for the county. Dispatch includes EMS, Fire and Police.
Whatcom	WHAT-COMM call receiving and central dispatch center is the primary public safety point for dispatch. Bellingham Fire Department (Prospect Communications Center) dispatches Fire and EMS and together, provides E-911 for the county. Police dispatch exists, but is separate.

Cell Phone Challenges to Dispatch System

Cell Phone 911 Access to Dispatch Center: Through the first quarter of 2003, Washington State Patrol (WSP) received all 911 calls from cell phones. The WSP would determine the location of the caller and route this caller to the closest dispatch center. This process created a stress on the WSP system and also delayed access to dispatch agencies.

Currently, cell phone calls are routed directly to dispatch centers, however, there is no guarantee what dispatch center will receive the call. Because of the design of the cell phone tower systems, there is limited ability to accurately identify the appropriate dispatch center that would match the location of the cell phone caller. The triangulated tower system provides limited ability to direct the call to the appropriate center. Depending on how the tower receives the cellular phone signal, calls could be misdirected to other counties, dispatch centers and at times, to Canadian dispatch centers. This is occurring in all five counties and creates a significant delay in identifying location of call and appropriate dispatch of prehospital agencies.

Cell Phone Access Creates Dispatch Work Overload: Cellular phone communication has significantly increased dispatch workload. For example, when there is a car accident on a highway, there often is a flood of callers reporting the accident from their cell phone, as they pass the accident. The dispatcher has to completely respond to callers according to their standard dispatch procedures. This alone has created work overload for dispatch agencies and creates a stress on the overall efficiency of timely response. Additionally, as stated above, these multiple calls can arrive at several dispatch agencies simultaneously, again increasing the dispatch workload.

Cell Phone 911 Access in Rural and/or Wilderness Areas: There is limited or non-existent cell phone coverage in rural areas and wilderness areas. At this time, there are no simple solutions to this issue, except for each county to re-address their rural areas to obtain the most current information.

Cell phone 911 Access Has Recently Progressed: In many positive ways, cell phone 911 Access will continue to become more efficient as funding for upgraded communications systems is prioritized. The FCC has directed cellular providers to develop GPS technology that will provide wireless callers with the same level of E 911 service as landline callers. This new technology allows dispatchers to locate callers up to 50 meters or approximately 170 feet. Significant funding for communications is expected soon, resulting from the recent presence of the Homeland Security agency in the region, with one of their major priorities being communication improvement. It is anticipated that by the end of this year, all county dispatch agencies will be upgrading.

Cell Phone Summary
The Regional Council recognizes that the issues regarding cell phones are technical challenges and cannot effectively be dealt with on a regional level. Therefore, goals and objectives will not be identified at this time.

Dispatch Integration With EMS
Policies and procedures for dispatch centers are often established without the direct involvement of each county's emergency service providers. Dispatch representatives and EMS providers are not actively participating in a systematic regional process. However, some dispatch agencies are active in local EMS councils. The region would like to directly associate with dispatch centers to communicate more effectively with each other in providing pre-hospital emergency needs.

b. Dispatch

1) Training for Dispatch Personnel

Training For Dispatch Personnel
Washington State law does not allow for the DOH or any other known organization in the state to certify dispatchers or call takers in EMD. Therefore, there is no requirement for communication centers to become EMD trained.

Many dispatch centers rotate dispatch personnel between the law enforcement position, and the fire and EMS position. Any position is capable of serving as call-taker. Many centers use the CAD system, which is used for report writing and system performance monitoring, primarily for law enforcement applications and is therefore, limited in its EMS report writing capabilities. Although there are EMS modules available, some centers have declined to purchase them. Although all agencies have an Enhanced 911 system, the geo-coding is incomplete, requiring many dispatchers to manually override the system.

Further, while certain dispatch stations use EMD (Emergency Medical Dispatch) instructions, or emergency medical triage protocols, again only certain dispatchers are trained and therefore there is no requirement that the instructions be followed. Having appropriate training and compliance among all dispatchers, as well as a continuous and formal process for ongoing quality improvement in the Region would significantly improve the current system.

Dispatch Personnel Retention/Burnout
Dispatch centers have difficulty hiring and retaining employees. Low pay, long hours, weekends, night shifts, and mandatory overtime are responsible for employee burnout and large turnover within dispatch centers. Part-time shifts, shift trading, higher pay, and better benefits could attract more trainees and help to keep experienced call takers and dispatchers from resigning. APCO (Association of Public-Safety Communications) is working on providing a staffing standard for communication centers. The project is called RETAINS (Responsive Efforts to Assure Integral Needs in Staffing).

It can take over one year of training and experience to become a qualified call taker. It can take over three years of training and experience before a call taker is qualified to become a radio dispatcher. This represents a considerable investment in time and money on the part of the dispatch agency, as well as time of the part of the employee.

2) Dispatch Prioritizing

Criteria Based Dispatch (CBD) / Priority Dispatch EMS
Most dispatchers use Criteria Based Dispatch (CBD) guidelines, while Whatcom County uses Priority Dispatch EMS, which is protocol based, to determine the appropriate level of emergency response. Also using North Region's Patient Care Procedure #3, dispatch personnel are directed on appropriate use of trauma system activation and prioritization.

Part of EMD (Emergency Medical Dispatch) training includes dispatch prioritizing. The value of regular EMD training cannot be underestimated. Continued and regular training regarding dispatch prioritizing needs to continue in the North Region.

3) Provisions for Bystander Care with Dispatcher Assistance

Pre-Arrival Instructions
While some dispatchers are trained to provide pre-arrival instructions, including CPR, there is no requirement to do so. As this is often left to the discretion of the trained dispatchers, it is not known with what frequency this occurs. Moreover, there is no requirement that others processing requests for ambulance services, e.g. non-emergency providers, comply with any training and performance requirements. Therefore, there is potential for requests to be improperly triaged resulting in improper deployment of critical resources.

4) Patient Care Procedures or County Operating Procedures Developed to Improve Communications

Patient Care Procedures For Improved Communications
Regional Patient Care Procedures currently address dispatch access and/or contact to Prehospital EMS care. All Patient Care Procedures (PCPs) are located on the region's website at www.northregionems.com. No counties in the North Region have County Operating Procedures (COPs). The region's Prehospital Committee will be addressing the interface between the region's dispatch centers and prehospital providers and hospitals. As appropriate, the committee will then determine which, if any, PCPs or COPs will need to be developed or changed.

c. Primary and Alternate Communication Systems

With the exception of a few communications dead spots in rural and/or wilderness areas, field and field-to-hospital communications within each county are reasonably effective. Problems with Prehospital communications are predominantly in remote rural areas where neither cell phone nor radio will reach the receiving hospitals. Ambulances must wait until they are in cell phone or radio range. This is an ongoing problem requiring a statewide solution.

Inter-county communication issues present in the region are currently being addressed statewide as a result of Regional Hospital Emergency Preparedness Planning. Communication methods from hospital-to-hospital vary from county-to-county and can create communication delays in the region. There is only one of the eight hospitals in the region that has the capacity to contact all hospitals by use of the HEAR radio (Skagit Valley Hospital/Mount Vernon). Many hospitals rely on the VHF HEAR system, while others primarily use cellular phones. One hospital in the region does not have the HEAR radio system (Valley General Hospital in Monroe) and is currently assessing their need for the system. The greatest impact of system communication issues is around communication between hospital-to-hospital, which is being addressed at the State level and will become more of a priority as disaster management continues to be prioritized.

Back-up systems also present a significant weakness in all areas of the Region. The greatest impact of these communication issues will be felt during any major disaster situation, as there are few common agreements throughout the region on which systems would be utilized in such events. Currently, the major communications system during a disaster is the HAM radio system.

Snohomish County is instituting an 800 MHz radio system and intends to make the system available for hospital and Prehospital utilization, as well as other agencies that participate in disaster management. The system is also compatible with the system that is used in King County and should improve communication during disasters between those counties.

d. System Operation during Single Patient, Multiple-Patient, Mass Casualty and Disaster Incidents (Ambulance to Ambulance, Ambulance to Dispatch, and Ambulance to Hospital Communication Systems)

Communications systems in the region continue to function for day-to-day standard operations, however, there is concern over how multiple-patient, mass-casualty, or other disaster incidents will strain current systems in place. Often,

it is necessary for EMS providers to communicate with other agencies such as law enforcement, fire departments, and public utility agencies, while in route or at the scene of an emergency call. In most locations, each of these agencies utilizes divergent radio frequencies. Some EMS agencies carry radio frequencies used by police and state patrol, while in other areas, the communication link must go through the emergency dispatch center, critically requiring current and accurate information for coordination of communication at EMS scenes.

For single-patient, multiple-patient and mass-casualty patients, communication is designated by an established frequency assigned by dispatch. For disaster incidents on the county or state level, there are plans in place that designate how communications will be established, yet not all agencies have the same communications capabilities. Communication frequencies have also been established by local dispatch agencies for ambulance-to-ambulance and ambulance-to-dispatch communication. Ambulance-to-hospital communications is most frequently done via cell phones. Regarding hospital-to-hospital, few hospitals in the region have written policies or practiced radio communication plans with other hospitals. All but one hospital in the region has HEAR radio communications capability, but only one of those hospitals can communicate with all eight hospitals region-wide, due to distance and terrain configurations.

There is documented evidence that in past disasters, HAM radio and/or face-to-face communication rapidly turned out to be the only available means of communication for certain time periods while primary systems were down. Primary communications systems need to be established that can be utilized by multiple agencies, such as the 800 MHz radio systems, which is currently being instituted in Snohomish County. The 800 MHz systems will be available for hospital and prehospital utilization, as well as other agencies that participate in disaster management. The system is also compatible with the system that is used in King County and should improve communication during disasters between those counties. Phase 1 of this new system is scheduled to be operational before years end 2003.

e. Roles of Public and Private Agencies

During normal operations, the Region's primary communication systems generally are effective. However, both public and private agencies have a role in communications during disasters and mass casualty events. For example, most hospitals have contracted with local HAM radio experts to come into the hospital to communicate with their local EOC, via HAM/amateur radio.

f. See Table A, (See next four pages)

TABLE A

EVALUATION OF COMMUNICATION SYSTEM PROVIDERS & DISPATCH ACTIVITIES (1 of 4 Pages)

ISLAND COUNTY

	Survey Questions	Dispatch Response
1	Citizen Access	911 lines and business lines
2	Consolidated Centers	1
3	Number of Employees	19 Dispatchers and 3 Administrators
4	Number of Employees Not Trained	3
5	Kinds of Training	New Employees-In-house dispatch academy including computer technologies, geography, call processing, law/fire/EMS radio usage & protocols, CBD, ACCESS, CJTC T1 & T2 training & certification, practical application. OJT with Comm. Training Officers. EMD Protocol
6	Frequency of Training	Annual
7	On-going Training & Certification	T1 & T2, ACCESS & EMD
8	Kinds of Protocols	SOP and Training
9	Medical Director Involvement	Yes
10	Dispatch Prioritizing	EMD and Fox Dispatch Zones/Levels
11	Bystander Care	Fire and Law TACs
12	Pre-arrival Instructions	EMD
13	Quality Assurance	Quarterly

SAN JUAN COUNTY - SHERIFF'S DEPT.

	Survey Questions	Dispatch Response
1	Citizen Access	911 and business
2	Consolidated Centers	1
3	Number of Employees	9
4	Number of Employees Not Trained	1
5	Kinds of Training	6 month CTO program: in-house training, new house call receiver, and data channel/city police/ county police. T1 & T2, ACCESS level II certification. CBD certification
6	Frequency of Training	Semi-annual
7	On-going Training & Certification	T1 & T2, ACCESS level II certification, CBD certification
8	Kinds of Protocols	SOP manual, training manual, individual department protocol responses
9	Medical Director Involvement	None
10	Dispatch Prioritizing	Spillman SW CAD
11	Bystander Care	CID for staff offered
12	Pre-arrival Instructions	CBD and protocols
13	Quality Assurance	Calls reviewed as requested

One central dispatching service through the Sheriff's department on San Juan Island

TABLE A

EVALUATION OF COMMUNICATION SYSTEM PROVIDERS & DISPATCH ACTIVITIES (2 of 4 Pages)

SKAGIT COUNTY - E911

	Survey Questions	Dispatch Response
1	Citizen Access	911, 10 digit emergency & 10 digit non-emergency numbers
2	Consolidated Centers	1
3	Number of Employees	41; 34 dispatch personnel, 5 administration 2 support
4	Number of Employees Not Trained	0
5	Kinds of Training	New Employees-In-house dispatch academy including computer technologies, geography, call processing, law/fire/EMS radio usage & protocols, CBD, ACCESS, CJTC T1 & T2 training & certification, practical application. OJT with Comm. Training Officers.
6	Frequency of Training	New Employees-3 times a year
7	On-going Training & Certification	Tenured Employees-Minimum 8 hrs per year
8	Kinds of Protocols	CBD, ACCESS, CJTC T1 & T2
9	Medical Director Involvement	Policies & Procedures, Standard Operating Guidelines, Training Bulletins, CBD & ACCESS protocols
10	Dispatch Prioritizing	Advise Only
11	Bystander Care	Law/Fire/EMS Technical Committees establish prioritizing standards for call types
12	Pre-arrival Instructions	Basic First Aid, CPR for admin staff
13	Quality Assurance	CBD & SOG protocols

A consolidated communication center is E-911 for Skagit County.

SNOHOMISH COUNTY - MARYSVILLE

	Survey Questions	Dispatch Response
1	Citizen Access	E-911 and business line.
2	Consolidated Centers	1
3	Number of Employees	12 and 1 dispatch supervisor
4	Number of Employees Not Trained	0
5	Kinds of Training	6 months in-house FTO (Field Training Officer) program, WA State TELE1 and TELE2
6	Frequency of Training	Annually
7	On-going Training & Certification	CBD and ACCESS
8	Kinds of Protocols	Department Policy and Procedure Manual, Daily OPF Manual.
9	Medical Director Involvement	Indirect with SNOPAC
10	Dispatch Prioritizing	Yes, CAD
11	Bystander Care	Yes
12	Pre-arrival Instructions	CPR, Basic First Aid
13	Quality Assurance	Yes, Evaluations and random sampling.

One of three communication centers and service includes police and fire. E-911 for Snohomish County dispatching is 4% of the calls.

TABLE A

EVALUATION OF COMMUNICATION SYSTEM PROVIDERS & DISPATCH ACTIVITIES (3 of 4 Pages)

SNOHOMISH COUNTY - SNOCOM

	Survey Questions	Dispatch Response
1	Citizen Access	911
2	Consolidated Centers	1
3	Number of Employees	23
4	Number of Employees Not Trained	0
5	Kinds of Training	On the job training & State Telecom program
6	Frequency of Training	New employees receive attend the State Telecom program training; on the job training as needed
7	On-going Training & Certification	None
8	Kinds of Protocols	Policies & Procedures, Standard Operating Guidelines
9	Medical Director Involvement	Indirect
10	Dispatch Prioritizing	Criteria based on call
11	Bystander Care	Basic First Aid, CPR for admin staff
12	Pre-arrival Instructions	
13	Quality Assurance	CBD & SOG protocols

One of three communications centers and is a consolidated dispatch. E-911 for Snohomish County dispatches 34% of the calls.

SNOHOMISH COUNTY - SNOPAC

	Survey Questions	Dispatch Response
1	Citizen Access	E911 & Business Line
2	Consolidated Centers	2
3	Number of Employees	68; 6 supervisory, 3 training supervisors, 7 on-call relief and 11 administrative
4	Number of Employees Not Trained	8
5	Kinds of Training	New Employees – 1-month class with 1- year probation to complete 911 training and dispatch training.
6	Frequency of Training	Annually
7	On-going Training & Certification	CBD, ACCESS, CJTC T1 & T2
8	Kinds of Protocols	Standard operating manual, SOP and day to day manual
9	Medical Director Involvement	Yes-quarterly
10	Dispatch Prioritizing	Yes, computer aided and default prioritizing
11	Bystander Care	Yes
12	Pre-arrival Instructions	Yes, first aid, CPR, basic CPD
13	Quality Assurance	Yes, medical director Q&A, standard evaluations

One of three communications centers and is a consolidated dispatch. E-911 for Snohomish County dispatches 62% of the calls.

TABLE A

EVALUATION OF COMMUNICATION SYSTEM PROVIDERS & DISPATCH ACTIVITIES (4 of 4 Pages)

WHATCOM COUNTY - PROSPECT

	Survey Questions	Dispatch Response
1	Citizen Access	E911 & Business Line
2	Consolidated Centers	Secondary PSAP, Back-up Primary PSAP, City/County Fire/EMS Dispatch
3	Number of Employees	12, 11 in call center
4	Number of Employees Not Trained	0
5	Kinds of Training	In-house training, call receiver, CAD, TTY, Geography, IMS, Hazmat, Fire Ground Operations, Dispatch City/County Fire/EMS. Outside training, T1 & T2, WA state EMT certification
6	Frequency of Training	Quarterly and individual online & CD training
7	On-going Training & Certification	EMD, TTY, T1 & T2
8	Kinds of Protocols	Policies & procedures, training manual, city policies, EMD protocols, Fire Services communications protocol
9	Medical Director Involvement	Yes, Dr. Marvin Wayne
10	Dispatch Prioritizing	Whatcom County Fire Services Comm. Protocol and CAD
11	Bystander Care	CISM, referrals for assistance
12	Pre-arrival Instructions	Priority Dispatch PDIs and PAIs
13	Quality Assurance	Monthly & Quarterly review; Priority Dispatch Steering Committee, Joint Operations

Bellingham Fire Dept (Prospect) dispatches Fire and EMS.

WHATCOM COUNTY – WHAT-COMM

	Survey Questions	Dispatch Response
1	Citizen Access	E911 & Business Line
2	Consolidated Centers	Primary PSAP, City/County Police/Sheriff Dispatch
3	Number of Employees	26, 23 in call center
4	Number of Employees Not Trained	0
5	Kinds of Training	In house training, call receiver, CAD, TTY, Geography, ACCESS, Dispatch City & County Police
6	Frequency of Training	Quarterly
7	On-going Training & Certification	ACCESS & TTY
8	Kinds of Protocols	SOP manual, training manual
9	Medical Director Involvement	Yes, Dr. Marvin Wayne and MPD
10	Dispatch Prioritizing	Per direction of individual LE agencies via CAD
11	Bystander Care	CISM, referrals for assistance
12	Pre-arrival Instructions	None
13	Quality Assurance	As needed & quarterly review

WHAT-COMM is primary PSAP (public service access point) – dispatch in most law enforcement for county.

2. COMMUNICATION GOALS:

GOAL #1: Improved 911 Access for citizens and visitors in North Region.

Objective #1 (First Quarter of 2004): Develop stronger relationships with dispatch agency groups by developing a communications sub-committee from the Prehospital Committee, comprised of a mixture of prehospital, hospital and dispatch agencies. The overall intention for a sub-committee would be to better understand the dispatch system and to have a forum to review and share information to improve services.

- ***Strategy#1:*** Identify key dispatch staff of all dispatch agencies throughout the region, as well as contact information for communication associations such as APCO.

- ***Strategy #2:*** North Region office to develop a dispatch contact database to distribute to Regional Council membership.

- ***Strategy #3:*** North Region office to send out a formal letter to invite dispatch agencies to participate in a communications committee. Set a date that is at least six weeks out, and include a brief agenda.

- ***Strategy #4***: Facilitate a dispatch committee meeting to assess and improve 911 Access Systems. Definitions will include geographic and systemic challenges.

- ***Strategy #5:*** Consider adding a dispatch agency representative to the regional council membership structure.

Projected Costs: It is expected to take additional time from staff to develop relationships that currently are not developed. Includes administrative staff time and associated expenses to coordinate. It is estimated that costs would be approximately $1,500.

Barriers: There is no barrier in developing better relationships with dispatch agencies.

Objective #2 (Fourth Quarter 2005): Develop Regional Dispatch Service Delivery model. This model would be a recommended standard of services required by pre-hospital EMS.

- ***Strategy #1:*** Prehospital Communications Sub-Committee will schedule a minimum of two meetings a year to discuss 911 Access improvements.

- ***Strategy #2***: Survey dispatch agencies and the region's rural and wilderness areas for needs.

- ***Strategy #2:*** Develop a strategic plan to formulate this model and present to the Regional Council.

Projected Costs: The time factor could be quite a bit. Estimated expenses and staff time could easily be $3,000+.

Barriers:

1. There is a significant lack of funding to address the needs and issues identified. Communication needs are complex and require significant funding to develop an appropriate regional forum to address the challenges of communication issues.
2. Technology and operational needs. The lack of interoperability based on both technology and jurisdictional practices limits the potential for maximizing services.
3. Political realities. Local needs over shadow regional considerations of cooperation due to the intensity of the communication problem. Distinct difference between EMS and law enforcement communication needs which creates barriers for comprehensive communication.

GOAL #2: Consistent EMD training for all regional dispatch personnel.

Objective #1 (Annually): Promote at least annually EMD (Emergency Medical Dispatch) training and CBD (Criteria Based Dispatch) throughout the region.

- ***Strategy #1:*** Include dispatch center personnel in regional communication planning and system QI meetings.

- ***Strategy #2:*** Work with dispatch agencies during the biennium to develop a CQI method to determine how successful EMD/CBD criteria are and the effectiveness of pre-arrival instructions.

Projected Costs: Staff time and associated expenses are estimated to be approximately $1,500+.

Barriers:

1. There is a significant lack of funding to address the needs and issues identified. Communication needs are complex and require significant funding to develop an appropriate regional forum to address the challenges of communication issues.
2. Technology and operational needs. The lack of interoperability based on both technology and jurisdictional practices limits the potential for maximizing services.
3. Political realities. Local needs over shadow regional considerations of cooperation due to the intensity of the communication problem. Distinct difference between EMS and law enforcement communication needs which creates barriers for comprehensive communication.
4. No authority to regulate.

GOAL #3: Timely emergency medical dispatch.

Objective (Annually): Promote, at least annually, the use of North Region PCP #3 (Trauma System Activation, defining both the Prehospital and Hospital components of trauma system activation on a regional level) to minimize the dispatch interval.

- ***Strategy #1:*** Review, update and distribute to dispatch centers, Regional PCPs on a regular basis and as needed.

- ***Strategy #2:*** Include dispatch personnel in system QI meetings.

Projected Costs: Staff time and associated expenses are estimated to be close to $750+.

Barriers:

1. Continued lack of consistent EMD training for emergency dispatchers.
2. Use of cell phones causes problems and delays.

GOAL #4: Dispatch agencies in the North Region utilize effective Bystander Care procedures.

Objective (Annually): At least annually, encourage dispatch centers to provide pre-arrival instructions that range from simple first aid to life saving instructions such as unconscious/breathing normally, CPR, choking, and child birth.

- ***Strategy #1:*** Include dispatch agency participation in regional communication planning committees.

- ***Strategy #2:*** Regional office to forward pre-arrival instructions and information to the dispatch agencies

Projected Costs: Staff time and associated expenses are estimated to be close to $1,000+.

Barriers:

1. Lack of EMD trained dispatchers limits them in using pre-arrival instructions.
2. This is a regulatory issue and needs to be dealt with on a statewide level.

GOAL #5: Formalized CBD/EMD CQI programs are integrated with EMS and Trauma System CQI activities.

Objective #1 (Ongoing): On an ongoing basis, encourage EMS and Regional CQI to invite emergency dispatch centers to participate at both the local and regional level.

- ***Strategy #1:*** Identify Prehospital agencies with CQI programs as part of regional surveys.

- ***Strategy #2:*** Include dispatch personnel in Regional Council system improvement planning.

- ***Strategy #3:*** Provide available information on CQI in dispatch-to-dispatch centers for their use in formalizing CQI efforts.

Projected Costs: Staff time and associated expenses to be approximately $1,000+.

Barriers: Most dispatch centers have not established internal CQI programs and are not yet motivated to participate in CQI at a local or regional level. There is no requirement for dispatch centers to participate in local or regional CQI programs.

GOAL #6: A comprehensive local, regional and statewide communication system meets the communications needs of the North Region for day-to-day operations and all mass casualty large-scale hazard incidents**.**

Objective #1 (FY 04-05 Biennium): Continue to encourage the military, Native American tribes/councils and other separate agencies to play an active role in their respective local county councils and the Regional EMS Council. The Region will facilitate the exchange of information, resources and encourage more cohesiveness in our overall communication.

- ***Strategy #1:*** Identify key contacts for all stakeholder groups.

- ***Strategy #2***: Inform and include key contacts in regional committee or meetings on communication planning.

- ***Strategy #3:*** Utilize a portion the HRSA bio-terrorism money to address communication needs for all large-scale hazard incidents.

Objective #2 (FY 04-05 Biennium): Continue discussions for the need of region-wide and a statewide alternative communication system with local councils and take part in a statewide system that can be used in catastrophic emergencies when normal communication breaks down.

- ***Strategy #1:*** Utilize Pre-hospital and communications groups to identify needs in the region and share information on alternative communication methods

- ***Strategy #2:*** Identify statewide committees and participate in them to ensure regional needs are addressed.

Projected Costs: Includes administrative staff time and associated expenses estimated to easily be $5,000+ because the number of agencies involved. Equipment needs are currently being assessed and expected to be costly. HRSA grant funds are directed to hospitals. There is also funding that is being made available to hospitals from a separate funding source (DOH), managed by leadership at Harborview Hospital in Seattle.

Barriers:

1) There is a significant lack of funding to address the needs and issues identified. Communication needs are complex and require significant funding to develop an appropriate regional forum to address the challenges of communication issues.
2) Technology and operational needs. The lack of interoperability based on both technology and jurisdictional practices limits the potential for maximizing services.
3) Political realities. Local needs over shadow regional considerations of cooperation due to the intensity of the communication problem. Distinct difference between EMS and law enforcement communication needs which creates barriers for comprehensive communication.

B. Medical Direction of Prehospital Providers

North Region EMS Medical Program Directors

Island	Dr. Paul Zaveruha
San Juan	Dr. Marcia Zackarison
Skagit	Dr. Ron Richeson
Snohomish	Dr. George Cozzetto
Whatcom	Dr. Marvin Wayne

Most of the North Region MPDs are paid either as county MPDs or through agencies as the medical director. Funding is also allocated to each county MPD through the State contract in the amount of $4,800 per year, which is not measured as an adequate amount of funding for the work that is expected and done by the MPDs. Funding provided for MPD services does not appropriately consider their lost time at work.

The MPDs customarily met quarterly, to revise local patient care protocols in order to distribute them region-wide. Recently, these meetings have not consistently occurred. This group continues to improve the regional EMS and Trauma System by reevaluating current goals, objectives and strategies.

In the North Region, the MPDs have developed county specific patient care protocols. General principles of American Heart Association cardiac care and American College of Surgeons trauma care are common in the protocols of all five counties. The MPDs in the region need to meet quarterly and discuss regional issues. They have developed inter-county agreements for education and provider reciprocity. They are participating in ongoing development of new regional patient care procedures (system guidelines).

1. Issues/Needs/Weaknesses Statement

The Region's system of Medical Program Direction is operating successfully. However, It is a goal of the North Region to continue to pursue avenues of evaluation and improvement. The region would like to strengthen the roles of the MPDs to improve system operation.

Another weakness is that the MPDs, although dedicated to their duties, have limited time to devote to regional meetings. Limited funding and heavy patient loads contribute to this situation. However, they are available through other means of communication should the need arise.

Some topics the MPDs would like to address include:

1) Dependency on current MPDs with no clear process for replacement
2) Inter-county response for mass casualty and WMD (*Weapons of Mass Destruction*) needs improvement
3) Provision of oversight for BLS needs strengthening
4) Improvement of communications within and between counties
5) Intra-agency relationships and operations both intra and extra county need improvement e.g. DEM (*Department of Emergency Management*), FD (*Fire Department*), PD (*Police Department*), SD (*Sheriff's Department*), etc.
6) Primary and CE for paramedic and BLS, skills maintenance, CE (ability to have all the necessary materials, intellectual skills, computers for on-line training. Needs should be addressed for sharing and augmenting of resources:
   - There is a need to clearly identify what is needed for initial training (paramedic only – ways to cut), as well as continuing education for ALS providers, BLS providers.
   - Skill maintenance is dealing more with the challenge of keeping paramedics up with their IV and Endo tracheal skills, as required.
   - Many paramedics, especially in rural areas, are challenged with maintaining their skills as required by DOH standards, which require a minimum of twelve (12) Endo tracheal intubations per year and thirty-six (36) IV's each. Senior EMTs are generally required to show documentation, with four (4) Endo tracheal and six (6)

IV's. MPDs expect that senior EMTs are proficient with these skills. The challenge is to get this on-the-job experience and if it doesn't occur on the job, how can you get the experience during working hours.

- There is a need for training tools that enhance ALS and BLS skills for critical patients in life-threatening situations, such as a product manufactured by Laerdal (SimMan), which provides simulated intubation training and other procedural skill sets. This would be a great tool for the region, allowing opportunities for training in a controlled environment for personnel to practice multiple skill sets that are often not readily available in the field.
- There is a growing awareness that health care is behind other high risk operations in its attention to ensuring basic safety and that there is a need to grasp the scale of the problem.
- Share resources on a region-wide basis.

2. MEDICAL DIRECTION GOALS:

Goal #1: MPDs are actively involved in the Regional Council and System QI.

Objective#1: **(FY 04-05 Biennium)** Promote and realize increased activity of MPD presence and participation in Regional Council meetings.

- ***Strategy #1***: Consult with MPDs regarding challenges and conflicts with their schedules. Ensure that Regional Council meetings requiring MPD presence are not scheduled at times that conflict with other necessary meetings of the MPDs.

Objective #2: (FY 04-05 Biennium) Reactivate quarterly MPD meetings that involve a more formal setting that includes active participation of the Regional staff.

- ***Strategy#1****:* Create a dialog with county MPD to reassess the goals of the MPD Committee, in order to re-emphasize its necessity.

- ***Strategy #2:*** Set up a Business Planning meeting with all MPDs to discuss the new approach to have an efficient and active committee.

- ***Strategy #3:*** Set up bi-annual or quarterly meetings for the MPD Committee to meet, beginning in 2003. The Regional office will explore the idea of organizing meetings via conference call in the event that traveling becomes a barrier.

Projected Costs: Valuable time for MPDs and staff time and associated meeting expenses. Estimated cost is $500+.

Barriers: Coordinating all five MPD schedules will be challenging.

Objective #2: (FY 04-05 Biennium) MPDs attending system and QI meetings and leading Prehospital issues and needs.

- ***Strategy #1****:* Provide regular MPD Reports to the Regional Council. If MPD Committee representatives were not available to attend a meeting, the Regional Director would assist the MPD with a written report to be presented to the Regional Membership.

- ***Strategy #2:*** Participate in communication planning to address communication gaps in the region.

- ***Strategy #3:*** Participation in education planning to address training gaps in the region.

Projected Costs: Minimal costs and will be absorbed by the Council.

Barriers: Lack of available time, and possibly lack of interest where value of meeting is not clear.

Goal #2: A system for MPD succession and backup.

Objective #1: (FY 04-05 Biennium) MPD Committee to develop a succession and backup system.

- ***Strategy #1****:* MPD Committee to assess what other communities are doing to address this challenge.

- ***Strategy #2:*** MPD Committee to develop an assessment tool for possible candidates.

- ***Strategy #3:*** MPD Committee to identify physicians in the community that may have an interest in the county trauma system.

- ***Strategy #4:*** Regional office staff to assist Medical Program Directors as needed in the development of an assessment tool to submit to possible candidates.

- ***Strategy # 5***: Ensure MPDs have an alternate.

Projected Cost: Costs would include time for both MPDs and Regional staff ($400.) Other costs would be minimal.

Barriers: Lack of available time for other doctors.

Goal #3: Consistent region-wide Medical Program Directors BLS oversight.

Objective #1: (FY 04-05 Biennium) MPD Committee to develop a consistent region-wide BLS oversight system.

- ***Strategy #1:*** MPD Committee to assess what other communities are doing to address this challenge.

- ***Strategy #2:*** MPD Committee to develop an assessment tool to address this challenge.

- ***Strategy # 3:*** Regional office staff to assist Medical Program Directors as needed in the development of an assessment tool to submit to possible candidates.

Cost: Costs would include time for both MPDs and Regional staff ($1,000+). Other costs would be minimal.

Barriers: Medical Program Director time will be the largest barrier.

Goal #4: Improved inter-county response driven by Medical Program Directors.

Objective #1: (FY 04-05 Biennium) MPD Committee to develop an improved inter-county response through the development of a region wide MCI disaster exercise.

- ***Strategy #1:*** MPD Committee to assess what other communities are doing to address this challenge.

- ***Strategy #2:*** MPD Committee to develop an assessment tool to address this challenge. Determine what other agencies are involved to assist with this challenge.

- ***Strategy #3:*** Regional office staff to assist Medical Program Directors as needed in the development of an assessment tool to submit to possible candidates.

Objective #2: (FY 04-05 Biennium) Have inter-agency relationships for operations and planning in place.

- ***Strategy #1:*** MPD Committee to assess what other communities are doing to address this challenge.

- ***Strategy #2:*** MPD Committee to investigate funding sources such as the Homeland Security grant dollars to implement drill.

- ***Strategy #3:*** Identify who needs to be involved in establishing a simulation center.

Projected Cost for Goal #4: Costs would include time for both MPDs and Regional staff ($1,500+). Other costs would include expenses associated with facilitating a meeting to include refreshments and meeting room fees. Other costs would include the expenses of holding a region wide drill. The Region would not be able to fund these expenses and would look for other funding sources and grants.

Barriers: This goal is on going and will continue in the succeeding biennium, unless there is funding sources identified. Another barrier is not having an MCI model that is consistent in the Region. Each county has their own thoughts and ideas of the MCI model to use.

C. Prehospital EMS and Trauma Services

a. Current EMS/TC personnel resources

1. Issues/Needs/Weakness Summary

1) Most suburban/rural areas are primarily serviced by volunteer agencies. Some of these areas have considerable challenges in recruitment and retention of personnel
2) Turnover in volunteer personnel ultimately increases the costs associated with training.
3) The majority of the volunteer agencies that provide EMS are fire-based systems. Increased training standards and requirements (Protective Gear/Ladder, etc.) at the federal and state level for combined fire-fighter training and EMS training makes it difficult for rural volunteers to commit to the personal time costs necessary. Examples of these increased requirements are listed in recent NFPA (National Fire Protection Association) documents for volunteer firefighters.
4) Lack of shared information on EMS system components regionally.

Paid/Volunteer County by County

First Responders		EMT's		IV's		AW's		IV/AW's		ILS's		ILS/AW's		PM's		Totals	
Paid	%	Paid	%	Paid	%	Paid	%	Paid	%	Paid	%	Paid	%	Paid	%	Paid	%
Vol.	%	Vol.	%	Vol.	%	Vol.	%	Vol.	%	Vol.	%	Vol.	%	Vol.	%	Vol.	%
Island County																	
16	6%	**39**	14%	**0**	0%	**0**	0%	**0**	0%	**0**	0%	**0**	0%	**17**	6%	**72**	26%
34	12%	**169**	61%	**1**	0%	**0**	0%	**0**	0%	**0**	0%	**0**	0%	**1**	0%	**205**	74%
San Juan County																	
0	0%	**1**	1%	**0**	0%	**0**	0%	**0**	0%	**0**	0%	**0**	0%	**9**	9%	**10**	10%
13	13%	**79**	77%	**0**	0%	**0**	0%	**0**	0%	**0**	0%	**0**	0%	**0**	0%	**92**	90%
Skagit County																	
26	7%	**36**	10%	**4**	1%	**0**	0%	**0**	0%	**0**	0%	**0**	0%	**39**	11%	**105**	30%
71	20%	**170**	49%	**3**	1%	**0**	0%	**0**	0%	**0**	0%	**0**	0%	**0**	0%	**244**	70%
Snohomish County																	
16	1%	**443**	38%	**19**	2%	**0**	0%	**1**	0%	**0**	0%	**0**	0%	**111**	10%	**590**	51%
108	9%	**464**	40%	**5**	0%	**0**	0%	**0**	0%	**0**	0%	**0**	0%	**0**	0%	**577**	49%
Whatcom County																	
23	4%	**123**	19%	**1**	0%	**0**	0%	**3**	0%	**0**	0%	**0**	0%	**46**	7%	**196**	31%
165	26%	**269**	42%	**2**	0%	**0**	0%	**0**	0%	**0**	0%	**0**	0%	**1**	0%	**437**	69%
GRAND TOTALS																	
81	3%	**642**	25%	**24**	1%	**0**	0%	**4**	0%	**0**	0%	**0**	0%	**222**	9%	**973**	38%
391	15%	**1151**	46%	**11**	0%	**0**	0%	**0**	0%	**0**	0%	**0**	0%	**2**	0%	**1555**	62%

% Indicates the percentage of total personnel for each county.
--Provided by DOH—

The work force in the region is 62% volunteer. The breakdown of volunteers by county is:

COUNTY	1997	1999-2001
Island County	—	74%
San Juan County	89%	90%
Skagit County	65%	70%
Snohomish County	55%	49%
Whatcom County	68%	69%

The Prehospital volunteer work force has experienced a twenty to thirty percent attrition rate annually by county. The current number of initial training courses in First Responder and EMT certification in each county is reported to be adequate to keep pace with the annual loss. The region provides funding support for some of these classes. Expanding requirements for additional training to meet state and national standards for fire and EMS are cited as a primary cause for attrition.

Maintaining paid and volunteer prehospital personnel will always be a challenge for the North Region. While the North Region system is strong and viable, personnel members are down from previous years. It is necessary to continue to seek highly qualified prehospital personnel to provide current and future patient care.

GOAL #1: Model recruitment and retention plan for volunteer provider agencies in the Region.

Objective #1 (FY 04-05 Biennium and Beyond) Address and review regional training and retention issues by the Education Committee and the Regional Council.

- ***Strategy #1:*** Education Committee to bring together volunteer provider agencies to facilitate discussions regarding training issues to include concerns of increased costs as a result of turnover and also issues regarding the additional training standards and requirements and the affect in volunteer communities. Encourage these agencies to come with possible solutions and to "think outside of the box".

- ***Strategy #2:*** Document these committee meetings and update the Regional Council.

- ***Strategy #3:*** Seek grant funding to support a region-wide study and implement as appropriate.

Objective #2 (FY 04-05 Biennium) Support the reduction of duplicated services, and encourage cooperative partnerships, providing the most efficient service.

- ***Strategy #1:*** Identify services available in rural areas and thoroughly review and assess possibility of duplication of those services.

- ***Strategy #2:*** Develop inter-agency MOU's (Memorandums of Understanding) to service adjoining jurisdictional boundaries.

Projected Costs: Funding is really unknown at this time. However, it would require a considerable amount of time from North Region staff to coordinate. Estimated costs could easily be approximately $5,000+.

Barriers

1. Political realities. Local views, policies and perspectives over shadow regional considerations of cooperation.
2. Current lack of funding.
3. Ever increasing personal and professional demands on the volunteers reduce their availability to participate within the system.
4. Lack of shared information on EMS system components regionally.

b) Prehospital training resources

1. Issues/Needs/Weakness Summary

1) Having comprehensive training resources that can be accessed by members of the region.
2) Turnover of volunteers, having a significant impact on the numbers of people that require training; and the cost associated with that.
3) Changes in SEI requirements are creating an additional hardship on the available pool of SEI's, especially in rural areas. The new requirement that SEI instructors document their training to their peers could be a real challenge especially when there is only one SEI instructor in an area. The matter of compensation and time for the peer SEI instructor is also an issue. This could generate increased training and travel expenses, as well as scheduling barriers for the SEI Instructor and the Peer SEI Instructor.

Prehospital Training Resources
Education and training is a high priority in the North Region. The Regional Council supports education for Prehospital providers. The Council has established a commitment to provide education and training to:

- Assure an adequate Prehospital work force through initial training support and continuing education for re-certification;
- Assure Prehospital services can meet verification requirements;
- Assure continuous system quality improvement.

The Regional Council has provided funding for low cost, region-wide courses including Prehospital Trauma Life Support and Pediatric Advanced Life Support. The Council office coordinates region-wide "trauma" education courses funded by the Regional Council. These courses are advertised regionally and traditionally held in various county locations. Training for Paramedics within the region has been funded as well.

In addition, local county Councils receive Regional Council funding for initial training, Ongoing Training and Evaluation (OTEP) events, and continuing education. Care is taken to assure the needs of rural providers and greatest areas of need is a focus of regional education funding support. Pediatric education continues to be an area of focus for the Regional Council. The Regional Council continues to offer PALS to paramedics and to develop pediatric care modules for use in OTEP programs for Prehospital providers. The Regional Council also supports instructor training and uses pools of qualified instructors for regional courses. Local county Councils manage county EMS education.

GOAL: An adequate number of SEI's exists throughout the region to meet the training needs.

Objective #1 (Within 2004-2005 Biennium): Provide broader representation on the Regional Education Committee to make sure that all concerns are voiced at the regional level and communicated to the state committee.

Objective #2 (Within 2004-2005 Biennium): Work with the existing SEIs in the area to identify concerns and address them through regional education planning in 2004.

- ***Strategy:*** Meetings between the State Education Committee, the Regional Educational Committee and the region's SEIs will be held to discuss areas of concern and ideas to be forwarded to the DOH OEMTP for consideration.

Objective #3 (Within 2004-2005 Biennium): The Region's Training & Education Committee will develop a plan and timeline for beginning a dialogue with the SEIs to gain a consensus on how to increase the number of qualified instructors available in the region.

- ***Strategy*:** The Education Committee will meet, and with input from the MPDs, will develop the plan.

Projected Cost: Minimal.

Barriers: SEI Instructors in rural areas unwilling to travel to another community to document SEI instruction of peer instructor without compensation of time and travel.

c) Prioritizing and Conducting Prehospital Training

1. Issues/Needs/Weakness Summary

1) ALS re-certification requirements present a challenge to meet both the didactic components and the skill set requirements due to limited opportunities and funding.
2) Delivering BLS ongoing training to rural departments continues to present a significant challenge.

Prioritizing and Conducting Prehospital Training
The Regional Council relies on local county EMS councils to identify training needs to maintain current levels of personnel. Regional trauma facilities are responsible for identifying hospital training needs as well. The Regional Education Committee develops goals and objectives to prioritize and secure hospital and Prehospital personnel training. Additionally, the Regional Council has identified the need for an evaluation of ILS. North Region MPD's will evaluate the areas of need and feasibility for ILS within the region.

North Region Prehospital Training Comparison Levels

County	First Responder		IV/AW IV AW		EMT		PM		Totals	
	1997	00/01	1997	00/01	1997	00/01	1997	00/01	1997	00/01
Island	116	50	2	1	135	208	15	18	268	277
San Juan	12	13	2	0	83	78	9	9	106	100
Skagit	114	97	8	7	233	206	55	39	410	349
Snohomish	294	124	18	24	802	907	84	111	1,198	1166
Whatcom	209	188	4	3	400	392	45	47	658	630
Totals	**745**	**472**	**34**	**35**	**1,653**	**1791**	**208**	**224**	**2,640**	**2522**

2. Goals:

GOAL: The entire North Region has comprehensive, prioritized Prehospital training.

Objective #1 (Within 2004-2005 Biennium): Continue to fund community-based programs now in place.

- ***Strategy #1:*** Utilize the education committee forum to distribute education funds (North Region Community Based Education Funds) to Prehospital agencies, through each local EMS Council office.

- ***Strategy #2:*** Due to limited funding from DOH, exploring other funding options (DOH Needs Grant) is essential to provide additional training support.

Objective #2 (Within 2004-2005 Biennium): Support efforts to review and revise where appropriate ALS re-certification requirements of the first certification period. Specifically, review intubation skill requirements.

- ***Strategy #1:*** Provide supporting documentation for the review to the state standards committee.

- ***Strategy #2:*** Work through the regional MPD Committee.

Projected Costs: The Regional Council currently has budged $60,000 for Community Based Education Grants. There are also other costs for staff time to coordinate DOH Needs Grant and meetings that are estimated to be approximately $5,000+.

Barriers:
1) Lowering any standards may create substandard care or perceived substandard care.
2) Rural areas create significant challenges in accomplishing the goals.
3) Availability of MPDs time.

d) Additional Public Safety Personnel

1. Issues/Needs/Weakness Summary

1) There is a need for a coordinated evaluation of additional public safety personnel needs.
2) There is limited participation by other public safety personnel in local and regional council meetings.
3) More AEDs are required for public safety personnel not directly associated with pre-hospital EMS.

Additional Public Safety Personnel Role and Availability
Mt. Baker Ski Patrol (Whatcom County) provides care for EMS and trauma patients at and around the ski area during winter operations. Patrollers have a mixture of skills to include EMT, Paramedic, nurse, physician, and ski patrol first aid trained providers.

The National Park Service provides initial care for visitors to the two national parks in the North Region, San Juan National Historical Park, on San Juan Island, and the North Cascades National Park, a wilderness recreation area, 600,000 acres of which are in Whatcom and Skagit county. Forty percent of the staff is EMTs.

Search and Rescue/Mountain Rescue provide rescue and medical service throughout the region. Some members are EMTs or first aid trained. These agencies coordinate with local Sheriff departments and the Department of Emergency Management by county.

Whidbey Island Naval Air Station in Island County is utilized throughout the Region in rescues where hoisting of patients by helicopter is required. Activation of naval SAR units is through the Sheriff's department in the respective county.

2. Goals

GOAL #1: Public safety personnel from all areas of the region actively participate in the region.

Objective #1 (Within 2004-2005 Biennium): Actively encourage additional public safety personnel to participate within the region and within their local EMS councils.

- ***Strategy #1:*** Identify public safety personnel organizations and compile a contact list.
- ***Strategy #2:*** Identify their goals as related to the region and collaborate on similar goals.
- ***Strategy #3:*** Incorporate their issues/needs/weakness in future Plans.
- **Strategy #4:** Work with Homeland Security to develop plan for sharing of resources.
- **Strategy #5:** Work with the various disciplines to coordinate regional drill activity.

Projected Costs: A substantial amount of office time to identify all agencies and to understand their goals. Much of this funding will be allocated to the Terrorism Planning DOH contract. Estimated costs for this could easily be $5,000+ for staff time and associated expenses.

Barriers In the past **t**here is a lack of rational or motivation, requirement or funding for other public safety agencies to participate. However, will all of the additional funding from Homeland Security, it is expected that this goal will be easier to accomplish than in previous years.

GOAL #2: All public safety personnel from the region have access to AED's and related training.

Objective (Within 2004-2005 Biennium): Identify funding sources and assist interested agencies in acquiring AED's.

- ***Strategy #1:*** To use the regional council office as a clearinghouse of information for acquiring AED's.
- ***Strategy #2:*** Continue to work with the State with the rural AED grant funding that provides AEDs and training in rural areas of the Region.

Projected Costs: Staff office time, long distance calls, postage for correspondence and traveling to distribute AEDs. Costs for staff time and associated expenses are estimated to be $3,000+.

Barriers: Developing and processing applications for AED's and the coordination of training has taken a considerable amount of office time.

D. Verified Aid and Ambulance Services

1a. Current Status

All areas of the North Region have adequate distribution of aid and transport services at ALS and BLS levels. Rural providers cooperate to insure that requests for service in adjoining areas receive appropriate response when resources are limited. BLS rendezvous with ALS services is the norm. During this biennium planning cycle, the Region is determining as precisely as possible the service areas for currently verified services. The Region will also work with Local EMS Councils to identify unserved or under-served areas. Council staff will provide workshops at each County Council concerning the State's approach to basing need and distribution on criteria in statute and rule. The Regional Council will provide guidance to Local Councils in the use of DOH Biennial Plan Format – Attachment 1 – Criteria for Identifying Need and Distribution, as a preliminary step in analyzing the need for adjusting min/max numbers within the Region.

Tiered Response

In the North Region, Prehospital EMS care is provided through a tiered approach. The initial response includes the local dispatch of basic life support (BLS) fire service First Aid providers, First Responders, and EMT's. Most local fire service agencies respond with "aid vehicles." Some of these vehicles are capable of patient transport, but do so only in special situations. Some agencies respond with "ambulances" as their initial response vehicle. On a regional basis, there is limited BLS transport without prior ALS patient assessment at the scene. Advanced Life Support (ALS) is the primary mode of transport for trauma. Patient care procedures address the standard for response and transport of trauma patients in the region. North Region expands regional patient care procedures for trauma patient care.

BLS First Response

For the most part, BLS first response units respond within their fire district boundaries. Current placement of fire department locations appears to provide response times that are compatible with those mandated in WAC 246-976-390.

ALS Transport

ALS transport units in the region have varied response areas. Transport ambulance agencies are either fire service based, hospital based or private. Some services respond county wide, others respond within combined fire districts; still others respond to segments of a county.

Air Transport

There is rotary wing air ambulance service available in the North Region. Airlift Northwest provides routine ALS service throughout the Region. They provide direct service out of Bellingham and Arlington and are headquartered at Harborview Medical Center in King County. Each flight team consists of two registered nurses with extensive critical care trauma experience. The primary air transport service is for critical pediatric patients. Regional Patient Care Procedures (Appendix A) address activation of helicopter response. Airlift Northwest dispatchers coordinate their response between the referring facility and/or agency and the receiving hospital.

The Region also has fixed wing air transport to mainland medical facilities from San Juan Island. Island Air transports patients needing basic life support (BLS) and advanced life support (ALS). Because of the geographic challenges of transportation from a community consisting of four main islands and multiple smaller islands, family members are able to fly with the patient on Island Air. Often, one of biggest challenges for air transport is weather. A helicopter cannot fly in certain kinds of weather. Often, when the weather has grounded the flights from the mainland, pilots can still leave the island with the fixed wing air transport.

The subsequent tables, presented by county, highlight:

- Current geo-political prehospital response areas by county, by urban, suburban, rural, wilderness categories
- Current distribution of verified services by type and level of service, by agency
- Needs for unmet services or unmet services for trauma verified services

ISLAND COUNTY

Verified Aid and Ambulance Services	Geographical /Political	Agency Name	City	Service Needs: Unmet or Under-Served
Verified Aid Vehicle	Urban	Island County FPD #2	Oak Harbor	None Identified
BLS - 4	Rural	Island County FPD #3	Langley	None Identified
	Suburban/Rural	Central Whidbey Is F & R	Coupeville	None Identified
	Urban	Oak Harbor Fire Depart	Oak Harbor	None Identified

Verified Ambulance **ALS - 1**	County Wide Response	Whidbey General Hospital	Coupeville	None Identified
Verified Ambulance	Rural	Island County Fire & Rescue	Camano Island	Anticipating that within a year or two, this agency will apply for Amb-ALS service.
BLS - 2	Urban	Oak Harbor Fire Department	Oak Harbor	None Identified

- **Summary:** San Juan County has 4 BLS Verified Aid Vehicles/1 ALS Verified Ambulance Service/2 BLS Verified Ambulance Services
- **Service Needs:** to be reviewed and identified within 2004-2005 Biennium

SAN JUAN COUNTY

Verified Aid and Ambulance Services	Geographical /Political	Agency Name	City	Service Needs: Unmet or Under-Served
Verified Aid Vehicle	Rural	Shaw Island Fire District #5	Shaw Island	None Identified
BLS - 1				
Verified Ambulance	Rural	Island Air	Friday Harbor	None Identified
N/A - 1				
Verified Ambulance	Rural	San Juan County FPD #2	Eastsound	None Identified
ALS - 2	Rural	San Juan Island EMS	Friday Harbor	None Identified
Verified Ambulance	Rural	San Juan County FPD #4	Lopez Island	None Identified
BLS - 1				

- **Summary:** San Juan County currently has 1 BLS Verified Aid Vehicle/1Verified Ambulance-Island Air/2 ALS Verified Ambulance Service/1 BLS Verified Ambulance Service
- **Service Needs:** to be reviewed and identified within 2004-2005 Biennium

SKAGIT COUNTY

Verified Aid and Ambulance Services	Geographical /Political	Agency Name	City	Service Needs: Unmet or Under-Served
Verified Aid Vehicle	Urban	Skagit County FPD A#2	Mount Vernon	None Identified
BLS - 17	Rural	Skagit County FPD #4	Clear Lake	None Identified
	Rural	Skagit County FPD #5	Bow	None Identified
	Urban	Skagit County FPD #7	Mount Vernon	None Identified
	Suburban/Rural	Skagit County FD #8	Sedro Woolley	None Identified
	Rural	Skagit County FPD #9	Clear Lake	None Identified
	Suburban	Mt. Erie Fire Dept/29D11	Anacortes	None Identified
	Rural	Skagit County FD #13	La Conner	None Identified
	Suburban/Rural	Skagit County FD #14	Burlington	None Identified
	Urban	Skagit County FPD #15	Mount Vernon	None Identified
	Suburban/Rural	Skagit County FPD #16	Sedro Woolley	None Identified
	Suburban	Skagit County FPD #17	Anacortes	None Identified
	Rural	Skagit County FPD #19	Rockport	None Identified
	Rural	Hamilton Fire Department	Hamilton	None Identified
	Rural	La Conner Fire Department	La Conner	None Identified
	Urban	Mount Vernon Fire Department	Mount Vernon	None Identified
	Suburban/Rural	Sedro Woolley Fire Dept.	Sedro Woolley	None Identified

Verified Ambulance	Suburban	Anacortes Fire Department	Anacortes	None Identified
ALS - 3	Rural	Aero-Skagit Emergency	Concrete	None Identified
	County Wide Response	Skagit County Medic One	Mount Vernon	None Identified
Verified Ambulance	Suburban	Island Health Northwest	Anacortes	None Identified
BLS - 1				

- **Summary:** Skagit County currently has 17 BLS Verified Aid Vehicle/3 ALS Verified Ambulance/2 BLS Verified Ambulance Service
- **Service Needs:** to be reviewed and identified within 2004-2005 Biennium

SNOHOMISH COUNTY

Verified Aid and Ambulance Services	Geographical /Political	Agency Name	City	Service Needs: Unmet or Under-Served
Verified Aid Vehicle	Urban	Snohomish County Airport	Everett	None Identified
BLS - 8	Urban/Suburban	Snohomish County FPD #15	Marysville	None Identified
	Suburban/Rural	Snohomish County FPD #16	Snohomish	None Identified
	Rural	Snohomish County FPD #19	Silvana	None Identified
	Suburban/Rural	Snohomish County FPD #21	Arlington	None Identified
	Suburban/Rural	Snohomish County FPD #23	Granite Falls	None Identified
	Suburban/Rural	Stanwood Fire Department	Stanwood	None Identified
	Urban	Navel Station Everett FD	Code 204 Everett	None Identified
Verified Ambulance	Urban	Snohomish County FPD #1	Everett	None Identified
ALS – 10	Suburban/Rural	Snohomish County FPD #7	Snohomish	None Identified
	Suburban/Rural	Snohomish County FPD #8	Lake Stevens	None Identified
	Suburban/Rural	Arlington City Fire Department	Arlington	None Identified
	Urban	Edmonds Fire Department	Everett	None Identified
	Urban	Everett Fire Department	Everett	None Identified
	Urban	Lynnwood Fire Department	Lynnwood	None Identified
	Urban/Suburban	Marysville Fire Department	Marysville	None Identified
	Urban/Suburban	Monroe Fire District 3	Monroe	None Identified
	Suburban/Rural	Stanwood & Community Ambulance	Stanwood	None Identified
Verified Ambulance	Suburban/Rural	Snohomish County FPD #4	Snohomish	None Identified
BLS - 15	Rural	Snohomish County FPD #5	Sultan	None Identified
	Suburban/Rural	Snohomish County FPD #14	Stanwood	None Identified
	Suburban/Rural	Snohomish County FPD #17	Granite Falls	None Identified
	Suburban/Rural	Snohomish County FPD #18	Arlington	None Identified
	Suburban/Rural	Snohomish County FPD #22	Arlington	None Identified
	Suburban/Rural	Snohomish County FPD #25	Arlington	None Identified
	Suburban/Rural	Snohomish County FPD #26	Arlington	None Identified
	Rural	Snohomish County FPD #27	Gold Bar	None Identified
	Urban	Snohomish County FPD #28	Everett	None Identified
	Urban	Mount Lake Terrace Fire Dept	Mount Lake Terrace	None Identified
	Urban/Suburban	Mukilteo Fire Department	Mukilteo	None Identified
	Suburban/Rural	Darrington Ambulance	Darrington	None Identified
	Urban	Rural/Metro Ambulance	Mount Lake	None Identified

			Terrace	
		American Medical Response	Tukwila	None Identified
	Urban/Suburban	Evergreen Speedway	Monroe	None Identified

- **Summary:** Snohomish County currently has 8 BLS Verified Aid Vehicle/10 ALS Verified Ambulance/16 BLS Verified Ambulance Service
- **Service Needs:** to be identified within 2004-2005 Biennium

WHATCOM COUNTY

Verified Aid and Ambulance Services	Geographical /Political	Agency Name	City	Service Needs: Unmet or Under-Served
Verified Aid Vehicle	Suburban/Rural	Whatcom County FPD #7	Ferndale	None Identified
BLS – 5	Urban	Whatcom County FPD #8	Bellingham	None Identified
	Urban	Whatcom County FPD #10	Bellingham	None Identified
	Suburban/Rural	Whatcom County FPD #17	Ferndale	None Identified
		Whatcom County FPD #18	Sedro Woolley	None Identified
Verified Ambulance ALS – 1	County Wide Response	Whatcom Medic 1/Bellingham Fire Department	Bellingham	None Identified
Verified Ambulance	Suburban/Rural	Whatcom County FPD #1	Everson	None Identified
BLS – 13	Urban	Whatcom County FPD #2	Bellingham	None Identified
	Suburban/Rural	Whatcom County FPD #3	Lynden	None Identified
	Urban	Whatcom County FPD #4	Bellingham	None Identified
	Suburban/Rural	Whatcom County FPD #5	Point Roberts	None Identified
	Urban	Whatcom County FPD #6	Bellingham	None Identified
	Urban	Whatcom County FPD #9	Bellingham	None Identified
	Rural	Whatcom County FPD #11	Lummi Island	None Identified
	Rural	Whatcom County FPD #13	Blaine	None Identified
	Rural	Whatcom County FPD #14	Sumas	None Identified
	Rural	Whatcom County FPD #19	Glacier	None Identified
	Suburban/Rural	Lynden Fire Department	Lynden	None Identified
	Suburban/Rural	Cascade Ambulance Service	Ferndale	None Identified

Summary: Whatcom County currently has 5 BLS Verified Aid Vehicle/1Verified Ambulance/13BLS Verified Ambulance Service
Service Needs: to be reviewed and identified within 2004-2005 Biennium

1. Issues/Needs/Weakness Summary

Need for Distribution of Services: As defined in RCW 70.168.100(1)(h), the North Region Prehospital Committee needs to work with all five local EMS councils and local communications centers with guidance from DOH staff to provide an assessment of the need for and distribution of services within the region. The assessment will be used to identify any un-served or underserved areas.

Other Needs Not Related to Distribution of Service: In order for prehospital providers to continue to provide excellent patient care, licensed and verified services need the necessary equipment to enhance their services. Nearly all rural volunteer prehospital licensed and verified agencies have needs for: 1) trauma equipment; 2) medical equipment; 3) communications equipment such as but not limited to radios, repeaters and base stations as well as pagers, cell phones and GPS devices; 4) training equipment; and 5) extrication equipment and extrication training.

GPS Tracking Devices: Historically, EMS agencies have relied on local names of geographical landmarks to identify the location of an injured patient. Other means of identifying location include Section, Township, Range; highway and road intersections and mileage from a specific town. While these methods of scene location are effective, they often involve multiple questions between our Communication Specialists and the EMS agencies and require a review of a commonly agreed map. The use of Global Positioning Satellite (GPS) will allow direct response to the scene, decreasing scene response time.

Minimum and Higher than Minimum Standards: The Prehospital Committee will need to work on response times and performance indicators and will need to continue to develop new goals and strategies to guide the committee through the process.

In the past, the Prehospital Committee has reviewed standards for minimum response times. At that time, it was the opinion of the committee that shorter response times in urban, suburban, and rural and wilderness areas could enhance optimum care for the major trauma patient. However, the Regional Council later determined that the response times developed might not be realistically achievable. Therefore, the Regional Council voted to revert to the State standards as identified in WAC 246-976-390 and 430.

It has been decided that the Regional Council will again evaluate and identify realistic response times that would be achievable and may possibly be above State minimum standards. The Regional Council understands that there is no statutory authority for the region to set higher standards, as well as understanding that any higher standards must be approved by the DOH before they can be enforced.

The focus for the Prehospital Committee will be to maintain State minimum standards and possibly set higher standards, which would provide essential life saving skills of airway control and bleeding control within a minimal period of time. Response times for transport vehicles are developed, recognizing the importance of ALS skills for advanced airway control, IV access, fluid replacement, and the potential need for invasive therapy for the major trauma patient.

Response Times

Previous Regional Goals:	**Minutes**	**State Standards:**	**Minutes**
Standard for initial response times to scene was agreed as follows:		State Standard for initial response time to scene for *Ambulance*:	
Urban	5 minutes	**Urban**	10 minutes
Suburban	5 minutes	**Suburban**	20 minutes
Rural	12 minutes	**Rural**	45 minutes
Wilderness	40 minutes	**Wilderness**	ASAP
Standard for initial ALS transport unit response time to scene was agreed as follows:		State Standard for initial response time to scene for *Aid Vehicles*:	
Urban	8 minutes	**Urban**	8 minutes
Suburban	10 minutes	**Suburban**	15 minutes
Rural	20 minutes	**Rural**	45 minutes
Wilderness	60 minutes	**Wilderness**	40 minutes

The North Region recommends that these response times are met 80% of the time.

Demographics

The total area to be served in the North Region is 6,329 square miles, some of which is urban and suburban, but most of which is rural and wilderness areas. As of April 1, 2000 the US Census Bureau and the Washington State Office of Financial Management listed the population of the North Region as 961,452. The following table shows the population by age and sex for the region.

North Region Population by Age and Sex

Age	Males	Females	Total Number
0 - 14	108,506	103,103	211,609
15 - 24	68,725	64,895	133,620
25 - 44	150,024	146,401	296,425
45 - 64	107,624	109,455	217,079
65+	44,206	58,513	102,719
Totals	**479,085**	**482,367**	**961,452**

a) Land area – 6,329.1 square miles
b) Land area in incorporated areas – 223.4 square miles (3.5%)
c) Land area in unincorporated areas – 6,105.8 square miles (96.5%)

d) Total population – 961,452
e) Population density – 151.9 persons per square mile
f) Proportion of population in incorporated areas – 468,840 (48.8%)
g) Proportion of population in unincorporated areas – 492,612 (51.2%).
h) Mortality, by place of occurrence, for region: Refer to the tables in the Injury Prevention and Public Education section and Appendix F for data related to mortality in the North Region.

EMS Data Need for System Improvement
Use of EMS data that ALS agencies collect is needed to determine if there are issues around response times for ALS transport vehicles. This information is needed to substantiate any need to change the system. Currently in several counties in the North Region, ALS coverage is being looked at for possible system improvements.

Verification
Most Prehospital agencies are currently verified as trauma services as required to provide trauma care under WAC 246-976-390. Verification of all Prehospital agencies providing medical response is a goal in the regional system.

The Regional Council has offered equipment grants to all Prehospital agencies since 1991 in order to assist these agencies in meeting trauma verification standards. Currently, most equipment standards appear to be met or exceeded in the North Region.

Regional process for determining the need for and distribution of prehospital services within each county in the region -- RCW 70.168.100(1)(h) and WAC 246-976-960(1)(b)(i):

Regional Process for Determining Need and Distribution of Services: Guidelines for developing the Need and Distribution of Services are provided by the DOH. These guidelines will be distributed to each agency and county EMS/TC council. The need for the development of these documents will be made as a deliverable in agreements between the county and regional EMS/TC councils. A review schedule will be developed and provided to each county. County councils will need to work with their agencies to ensure accuracy in the document. The documents will then be presented to the Prehospital Committee for review and recommendation to the Regional Council, which then will adopt the document and submit it to the DOH for review and approval.

Changes to Need and Distribution of Service Documents: Each year, there will be small changes in Need and Distribution of Services language. Each county will be asked to review and revise their narratives at least biennially through the agreement between the regional and county councils. Any changes to these documents are again reviewed by the Prehospital Committee with a recommendation to be presented to the Regional Council for adoption.

GOAL #1: Need and Distribution of Services decisions are complete.

Objective #1 (Within 2004-2005 Biennium): All five counties in the region will have completed their Need and Distribution of Services documents and will have them approved by the DOH by December 31, 2004 when the FY 05-06 Regional Plan is due.

- ***Strategy #1***: Verified agency representatives from all five counties will be invited to participate in the Prehospital Committee.

- ***Strategy #2***: The Regional Council Executive Director, President and/or the Prehospital Committee Chair will attend County Council meetings to provide guidance in the development and completion of the Need and Distribution of Services document.

- ***Strategy #3:*** Each county EMS/TC council will be asked to participate and review and complete its Need and Distribution of Services document by December 31, 2004.

- ***Strategy # 4:*** Regional Council will submit any adopted Need and Distribution of Services documents to the DOH.

Costs: Staff time and associated expenses are expected to be a minimum of $7,500+.

Barriers: This project is expected to take quite a bit of North Region staff time to coordinate with the Prehospital Committee membership and the Region's verified agencies.

Goal #2: The Needs of all Services are met.

Objective (Biennially): Survey all licensed and verified aid and ambulance services for their needs on a biennial basis.

Strategy #1*:* Encourage all rural prehospital agencies with needs (not limited to those identified above) to apply for funding through the Prehospital Needs Grant program.

Strategy #2: Ask county EMS/TC councils to encourage agency participation in the Prehospital Needs Grant program.

Costs: Staff time and associated expenses would be approximately $3,000+.

Barriers: Time to coordinate.

TABLE B

VERIFICATION

Min/Max Numbers for Trauma-Verified Prehospital Services

North Region	Island County			June 2003	
Services	STATE APPROVED		CURRENT STATUS	REGION PROPOSED (Indicate changes with an *)	
	MIN	MAX		MIN	MAX
Aid - BLS	8	10	4	8	10
Aid - ILS	0	0	0	0	0
Aid - ALS	1	2	0	1	2
Amb - BLS	6	7	2	6	7
Amb - ILS	0	0	0	0	0
Amb - ALS	1	2	1	1	2

TABLE B

VERIFICATION

Min/Max Numbers for Trauma-Verified Prehospital Services

North Region	San Juan County			June 2003	
Services	STATE APPROVED		CURRENT STATUS	REGION PROPOSED (Indicate changes with an *)	
	MIN	MAX		MIN	MAX
Aid - BLS	4	12	1	4	12
Aid - ILS	0	0	0	0	0
Aid - ALS	3	8	0	3	8
Amb - BLS	4	12	1	4	12
Amb - ILS	0	0	0	0	0
Amb - ALS	3	8	2	3	8

TABLE B

VERIFICATION
Min/Max Numbers for Trauma-Verified Prehospital Services

North Region	Skagit County		June 2003		
Services	STATE APPROVED		CURRENT STATUS	REGION PROPOSED (Indicate changes with an *)	
	MIN	MAX		MIN	MAX
Aid - BLS	13	27	19	13	27
Aid - ILS	0	0	0	0	0
Aid - ALS	0	0	0	0	0
Amb - BLS	13	27	1	13	27
Amb - ILS	0	0	0	0	0
Amb - ALS	3	3	3	3	3

TABLE B

VERIFICATION
Min/Max Numbers for Trauma-Verified Prehospital Services

North Region	Snohomish County		June 2003		
Services	STATE APPROVED		CURRENT STATUS	REGION PROPOSED (Indicate changes with an *)	
	MIN	MAX		MIN	MAX
Aid - BLS	10	10	8	10	10
Aid - ILS	1	2	0	1	2
Aid - ALS	0	0	0	0	0
Amb - BLS	12	15	16	12	15
Amb - ILS	0	4	0	4	4
Amb - ALS	11	11	10	11	11

TABLE B

VERIFICATION
Min/Max Numbers for Trauma-Verified Prehospital Services

North Region	Whatcom County			June 2003	
Services	STATE APPROVED		CURRENT STATUS	REGION PROPOSED (Indicate changes with an *)	
	MIN	MAX		MIN	MAX
Aid - BLS	8	20	5	8	20
Aid - ILS	0	1	0	0	0
Aid - ALS	0	0	0	0	0
Amb - BLS	13	19	13	13	19
Amb - ILS	0	1	0	0	1
Amb - ALS	1	1	1	1	1

E. Patient Care Procedures (PCPs) and County Operating Procedures (COPs)

1. Current Status:

Prehospital Trauma Triage Procedure
Identifying the "right patient", the ones who may die or be disabled from their traumatic injuries, is a vital element of trauma system design. In this state, we call it the State of Washington Prehospital Trauma Triage (Destination) Procedure. Prehospital providers will use it, statewide, to identify which patients activate the trauma system and go to trauma centers for care.

Patients who are identified as meeting criteria are banded with trauma ID bands, which have a unique number that follows the patient throughout his or her treatment. This number allows linking of data from Prehospital and hospital care, which enables patient care to be looked at from beginning to end. Due to the distance between hospitals in the North Region, most major trauma patients will go to the closest hospital for initial care.

Washington was the first state to put this in place statewide. Triage and treatment guidelines are addressed in Regional Patient Care Procedures.

Patient Care Procedures (PCPs) and County Operating Procedures (COPs)
The region operates with eleven (11) PCPs as listed in Appendix D. The Region regularly reviews the PCPs to ensure they reflect the needs of the Region. These PCP include:

Patient Care Procedure #1	Access to Prehospital EMS Care
Patient Care Procedure #2	Identification of Major Trauma Patients
Patient Care Procedure #3	Trauma System Activation
Patient Care Procedure #4	Identification of the Level of Medical Care Personnel to be Dispatched to The Scene of Major Trauma and to Transport Major Trauma
Patient Care Procedure #5	Prehospital Response Times
Patient Care Procedure #6	Activation of Air Ambulance Service for Field Response to Major Trauma
Patient Care Procedure #7	Transport of Patients Outside of Base Area
Patient Care Procedure #8	Transport of Patients to Designated Trauma Centers
Patient Care Procedure #9	Designated Trauma Center Diversion
Patient Care Procedure #10	Activation of Hospital Trauma Resuscitation Team
Patient Care Procedure #11	Inter-facility Transfer of Major Trauma Patients

Patient Transfer Patterns
Patients with special needs continue to be triaged or transferred to specialty care facilities according to the OBRA and COBRA regulations and patient need. Harborview provides Level-I trauma care for the North Region. Major trauma patient transfer patterns include:

- Transfer to Providence General Medical Center, St. Joseph, or Harborview for head injury.
- Transfer to Providence General Medical Center and St. Joseph for rehabilitation.
- Transfer to Providence General Medical Center, Colby campus, or Harborview for thoracic vessel trauma.
- Triage/Transfer to Harborview for critical pediatrics.
- Transfer to Harborview for major burn trauma.
- Transfer to Harborview for unstable spine and pelvic trauma.
- Transfer to Providence General Medical Center, Colby campus, and University of Washington for trauma in pregnancy.

Patient Transfer Guidelines
Guidelines for transfer of trauma patients are addressed in Regional Patient Care Procedures (Appendix D). The Washington Administrative Code (WAC) requires designated hospitals and facilities to address trauma center diversion and transfer of major trauma patients as a condition of designation. The hospital committee has developed and recommended regional Patient Care Procedures (Appendix D), which address these and other operational issues within definitive care. Once PCPs are adopted, they are distributed and followed.

The five counties in the North Region currently do not use County Operating Procedures. Although no COPs are established, the Region will continue to evaluate the needs for such guidelines.

Overall, the Regional Council reviews and recommends to DOH all PCPs through a committee and subcommittee process. The MPD and Prehospital Committee make recommendations to the Regional council for any changes to existing PCPs and any new PCP development.

The Region continues to evaluate multi county issues such as patient delivery. PCP # 7 (Appendix D) describes responsibilities when Prehospital personnel are required to transport patients outside of their base operating area (including cross county and through out the region).

GOAL #1: All Patient Care Procedures (PCPs) are reviewed annually.

Objective #1 (FY 04-05 Biennium): Review existing PCPs and revise or expand as appropriate.

Objective #2 (FY 04-05 Biennium): Review county COPs and have them posted on the North Region website.

Projected Costs: Time for the Regional office and the time for MPD's.

Barriers: None.

F. Multi County or County/Inter-Regional Prehospital Care

1. Issues/Needs/Weakness Summary

1) Need for an agreement for a regional standard MCI Plan.
2) Air services to the region do not participate in the regional EMS planning process. They don't participate in the local EMS planning process with the exception of Whatcom County.
3) North region needs to develop an improved relationship with all air services within the region.
4) Need to work on consensus for county/inter-regional/cross national borders policies.

2. Goals:

GOAL #1: An MCI plan that has standardized components utilized throughout the region with allowances for certain components that are adjustable to local practices and is compatible on a multi-regional basis.

Objective #1 (FY 04-05 Biennium) Coordinate with local EMS councils to adopt a model-basic MCI Plan that meets regional needs, but is also compatible with neighboring counties and regions.

- ***Strategy #1:*** Review available MCI plans and adopt a version that meets the regional needs that has compatibility with other counties and regions.
- ***Strategy #2:*** Make allowances for certain components that are adjustable to local practices and is compatible on a multi-regional basis.
- ***Strategy #3:*** Work with DOH to address developing a statewide MCI Model.
- ***Strategy #4:*** Work on consensus for county/inter-regional policies.

Objective #2 (FY 04-05 Biennium) Train all the regional providers to the model MCI plan.

- ***Strategy #1:*** Utilize the adopted model-basic plan to update the training curriculum and continuing education specifically related to MCI.
- ***Strategy #2:*** Explore enhanced funding opportunities to support this objective.

Projected Costs: Costs for this goal could be considerable, but most of the funding would come from the Terrorism Planning Grants from HRSA and Homeland Security. An estimate for staff time and associated expenses would easily be $5,000+.

Barriers:
1) Jurisdictional preference.
2) Geo/demographic barriers
3) Cost associated with adopting an MCI plan, and training all the regional participants.
4) Time

GOAL #2: Cross border reciprocity agreements with British Columbia/Canada will be in compliance with approved D.O.H. reciprocity policy.

Objective #1 (FY 04-05 Biennium) Work with Whatcom and San Juan counties with the development of written mutual aid agreements for patient transports between Washington State and British Columbia, Canada.

- ***Strategy #1:*** Assess the current situation.
- ***Strategy #2:*** Develop relationships and communicate as appropriate.
- ***Strategy #3:*** Work with DOH to ensure reciprocity agreements are in accordance with the DOH policy.

V. DESIGNATED TRAUMA CARE SERVICES

A. Issue/Need/Weakness Summary:

1) Hospital and Physician Economic Conditions are not conducive to optimum Trauma Care.
2) Inadequate supply of Trauma Care Providers.
3) Coordination of communication systems, common language, and resource management would be more efficiently handled on a state level with local modifications (EMS, EOC, Police, Public Health, Fire, Hospitals, Jurisdictions).
4) Clinical Guidelines must be continually developed, standardized and shared on a regional and statewide basis

There are currently nine acute care hospitals that provide care to the EMS and trauma patient population in the North Region. All nine have been surveyed for essential and desired elements of the Washington State Facility Standards. Clinical elements are currently met while some trauma administrative elements are needed. Seven of the nine provide twenty-four hour physician staffed emergency department service, general surgery, and intensive care. The other two are designated at Level V status and meet the requirement set forth in WAC 246-976 for such a designation.

B. Goals:

GOAL #1: Timely, efficient, accurate and cohesive regional system meets ISS qualified criteria**.** North Region hospitals are informed with current Physician Reimbursement status and updates.

Objective #1 (FY 04-05 Biennium): Appropriate hospital and physician reimbursement with services rendered and costs incurred.

- ***Strategy #1***: Work with the State DOH to keep informed of trauma care reimbursement policies.
- ***Strategy #2***: DOH to inform North Region hospitals of the current status and updates regarding Physician reimbursements.
- ***Strategy #3:*** Find out what systems are being used, assess which ones work well and modify that plan to be region wide.
- ***Strategy #4:*** Standing agenda item for the Trauma Facilities Committee: monitor the progress of the revised Reimbursement Plan
- ***Strategy #5:*** Develop a shared facilities template for implementation of the Revised Reimbursement Plan.
- ***Strategy #6:*** Educate Trauma Care Providers on the RRP.

Projected Costs: Staff time for meeting coordination. Estimated cost is $500.

Barriers:
1) Timely identification of eligible patients.
2) Timely with Trauma Care Providers when eligible patients are identified

GOAL #2: WA State DOH recommended statewide template for shared inter-agency communication system.

Objective #1 (End of FY 04-05 Biennium): Participate in planning of a regional and statewide-shared inter-agency communication system.

- ***Strategy #1:*** Regional Administrator facilitates a regional joint meeting of Trauma Medical Directors and EMS MPD's to develop recommendations to aid in the implementation of a statewide shared inter-agency communication system.
- ***Strategy #2:*** Request the State DOH to develop a standardized call-code system.

- ***Strategy #3:*** Recommend a state adoption of an 800 MHz radio system with satellite phone backup (EMS, Fire, Law Enforcement, Hospital, Public Health, Jurisdictions, EOC).

- ***Strategy #4:*** Recommend state adoption of an integrated communication system for all types of Emergency Responses to include MCI.

Projected Costs: Unknown at this time. Cost for equipment is anticipated to be considerable. The majority of staff time and meeting expenses would come from the HRSA funding, terrorism planning contract (approximate costs would be $3,000.)

Barriers:
1) Current Systems
2) Multiple Agencies
3) Costs of implementation

GOAL #3: WA State DOH recommended statewide template for coordinated inter-agency and inter-hospital resource management.

Objective #1 (FY 04-05 Biennium): Work toward simplified and improved patient care by standardizing patient care guidelines throughout region and then state for both Prehospital agencies and healthcare facilities.

- ***Strategy #1:*** Regional Administrator facilitates a regional joint meeting of Trauma Medical Directors and EMS MPD's to develop recommendations to aid in the implementation of regional and then statewide template for coordinated inter-agency and healthcare facility resource management.

- ***Strategy #2:*** Regional Administrator to submit recommendations to RAC at subsequent meeting.

Projected Costs: Staff time, travel and meeting expenses is estimated to be $3,000+.

Barriers:
1) Current Systems
2) Multiple Agencies and healthcare facilities
3) Difficulty of gaining statewide acceptance
4) Costs of implementation

GOAL #4: Facility Clinical Guidelines continually evaluated, developed, standardized, shared, and implemented on a regional and statewide basis.

Objective #1 (FY 04-05 Biennium): Facilities/QI Committee to work with State DOH (Trauma Medical Directors TAC) to standardize selected patient care guidelines according to Trauma Designation Level, first on a Regional level and then work with State DOH to present and promote regionally.

- ***Strategy #1:*** Regional development of Trauma Team Activation guidelines based on State DOH designation requirements.

Projected Costs: Staff time and associated meeting expenses are estimated to be $3,000+.

Barriers: Potential facility reluctance to change existing guidelines.

C. Designated General, Pediatric and Rehabilitation Trauma Facilities

Trauma Facilities	Location	Designation Level
ISLAND COUNTY Whidbey General Hospital	Coupeville	Level III
SAN JUAN COUNTY Inter-Island Medical Center	Friday Harbor	Level V
SKAGIT COUNTY Skagit Valley Hospital United General Hospital Island Hospital	 Mount Vernon Sedro Woolley Anacortes	 Level III Level V Level III
SNOHOMISH COUNTY Providence Everett Medical Center Valley General Hospital Cascade Valley Hospital Stevens Memorial Hospital Darrington Clinic	 Everett Monroe Arlington Edmonds Darrington	 Level III / IIR Level IV Level IV Level IV Level V
WHATCOM COUNTY St. Joseph/Peacehealth Hospital	 Bellingham	 Level II

There is one military hospital in the region. Naval Hospital - Oak Harbor (Island County) provides 24-hour emergency service and non-acute care in patient care for local navy personnel and their families. Major trauma both on and off base is transported to Whidbey General Hospital or air lifted by SAR units to Harborview Hospital, Madigan Army Hospital, or Bremerton Naval Hospital.

Naval Hospital - Oak Harbor plans to participate in the regional trauma system and is currently exploring designation. The naval facility would play a vital role in regional disaster support.

The work force within the region's hospitals is dictated by hospital operations. All hospitals maintain a twenty-four hour physician staffed emergency department and receive Prehospital patients from their respective areas.

The Regional Council continues to provide a forum for discussion and planning for designation of trauma centers by hospital representatives through the Hospital Quality Improvement Committee and the Hospital Trauma Facility Network, however the Council does not have a formal role in designation beyond assessing the need for designated trauma centers and recommending the number and levels of trauma centers required in the regional system. Hospital participation is exceptional in the regional planning process. The Region is planning to continue the use of the regional council committees as a vehicle for furthering system development work.

The larger urban hospitals are located in the north and south of the region along the I-5 corridor. These areas also represent the larger population centers. The location of the existing facilities has established natural geographically based referral patterns and catchments areas for patients, including major trauma patients. In most of these areas in the five counties, Prehospital EMS and/or ambulance services transport patients to the closest hospital for care due to geographic constraints and travel time to the next closest hospital.

Through evaluation of data, the Trauma Facilities Committee and the Quality Improvement Committee can make recommendations to the Regional Council regarding minimum and maximum numbers of trauma care facilities in the region. The Region continuously assesses methodology options for determination of min/max numbers for designation.

Currently the regional trauma designation recommendations, for number and level of trauma facilities, as approved by DOH are outlined in the next page, Table C:

TABLE C

NORTH REGION **FY 04/05 Regional Plan**

Min/Max Numbers for Acute Trauma Services

LEVEL	STATE APPROVED		CURRENT STATUS	REGION PROPOSED (Indicate changes with an *)	
	MIN	MAX		MIN	MAX
II	2	3	1	2	3
III	4	6	4	4	6
IV	1	2	2	1	2
V	1	4	3	1	4
IIP	0	0	0	0	0
IIIP	1	2	0	1	2

Min/Max Numbers for Rehabilitation Trauma Services

LEVEL	STATE APPROVED		CURRENT STATUS	REGION PROPOSED (Indicate changes with an *)	
	MIN	MAX		MIN	MAX
II	2	3	0	0	1

[+] *There are no restrictions on the number of Level III Rehab Services*

VI. DATA COLLECTION AND SUBMISSION

Discuss the role the Regional EMS/TC system may have in the transition of Prehospital to hospital submission of Prehospital trauma data assisting with improving the quality of Prehospital trauma data collection through completion and submission of trauma patient run sheets to designated trauma services (an example might be improving the method of getting dispatch times from communications centers)

1. Issues/Needs/Weakness Summary

1) Difficulty in obtaining required Prehospital data
2) Continue sharing reports via the North Region website

Most North Region Prehospital agencies have lacked the ability to submit data according to DOH per WAC 246-726-430. This WAC defines required registry data for submission by licensed Prehospital services, designated trauma care facilities, and designated rehab facilities. However, during DOH's new data submission requirement transition, North Region EMS plans to continue to work with Prehospital agencies to encourage them to pass through initial data elements to the reporting facilities. North Region trauma facilities have expressed the need to continue to receive initial data points from Prehospital services, as required for major trauma incidents.

In 2000, North Region Prehospital Committee collaborated with regional trauma facilities to tackle the data collection and submission shortfall. After many months of discussion and surveying, a 'Pilot' data collection program was implemented.

The program was tracked through fiscal year 2001 for evaluation. Island, San Juan, Skagit, Snohomish, and Whatcom counties received a non-transport short form, plus, education about the State Trauma Registry, and to 'band' all patients. Thousands of short reporting forms were distributed to Prehospital agencies to be used as a tool to pass through initial statistics to data reporting hospitals during and after DOH's data transition time.

Currently, all of the designated trauma facilities are providing data to the registry.

North Region EMS is committed to continue promoting and supporting data collection training, maintaining current designated trauma facility reporting at 100% through FY03-05. The North Region Prehospital Committee and the Quality Improvement (QI) Committee will work with state representatives to provide a continuing evaluation of the quality of data reported from this Region.

In the beginning of 2003, the Hospital Facilities Committee leadership, in cooperation with the North Region office implemented a "sample reporting/format website program" for the hospitals to review for ideas and consideration for reporting potential. Ultimately, the North Region would like to share data report information that is reported in a standard format to review and analyze North Region data in a confidential setting.

During 2004, the North Region will coordinate a forum for a daylong trauma registry/Collector training program for trauma service personnel. DOH staff will conduct the training. The region will coordinate the training including securing a room with access to computer/laptops, notifying participants of the training, providing travel reimbursement to participants as needed.

2. Goals

GOAL #1: North Region compliance with state requirements for Prehospital data submission

Objective #1 (FY 04-05 Biennium): Achieve full compliance with state requirements for Prehospital data submission

- ***Strategy #1:*** Regional joint meeting of Trauma Medical Directors and EMS MPD's to advocate for data submission compliance by 9/30/03 to be facilitated by Regional Administrator.

- ***Strategy #2:*** Request that the state bring reports of Prehospital data submission compliance to regional Facilities Committee meetings

- ***Strategy #3****:* Request the state address the accountability of non-compliant Prehospital agencies. Consider linking of grant funding and/or certification to compliance.

Projected Costs: Staff time and associated expenses estimated to be $3,000. There are both Regional and State meetings expected to accomplish this goal.

Barriers:
1) Multiple Prehospital transport agencies
2) Lack of accountability

GOAL #2: North Region uses standardized Trauma Registry reports to improve Regional Performance Improvement.

Objective #1 (FY 03-04 Biennium): Use standardized Trauma Registry reports to compare like information among facilities at the regional level

- ***Strategy #1:*** Add registry report sharing as a standing agenda item at regional Facilities/QI Committee meetings

- ***Strategy #2****:* Continue to create and share Data Extraction Tools via the North Region website

Projected Costs: Costs for this goal includes staff time (including Webmaster) and associated meeting expenses. Estimated expenses could be $3,000+. The North Region has budgeted $300/month for the Webmaster for all areas of website development.

Barriers:
1) Learning Curve
2) Meeting Attendance

VII. EMS AND TRAUMA SYSTEM EVALUATION

Prehospital/Hospital

Effectiveness and Quality Assurance

The State has made registry software available at no cost to all interested provider agencies. Even as the data collection process goes through the current transition, it is anticipated that the registry software will still be utilized by many Prehospital agencies.

Each region is mandated to have a regional quality improvement program. Level I-III designated trauma centers are charged with developing this program in the region. In the North Region, the sum of the quality improvement efforts in Prehospital and hospital agencies is viewed as part of a total regional quality improvement program. In addition, a county and regional element completes the regional design. The regional QI Committee reviews hospital and case data bimonthly to monitor and improve quality of care in the region. A state representative is present at all QI committee meetings and provides the region with custom Trauma Registry QI reports.

The region's hospitals surveyed as Level II and III capable have been working on a model for regional quality improvement for some time. It is expected that hospital representatives, who meet as the quality improvement committee, will continue to work on development and implementation of the regional quality improvement program within that forum. Prehospital provider involvement continues to be integral to the process and is planned to be continued in the development process.

Consistent with WAC 246-976-880, all designated trauma facilities in the North Region will have hospital wide trauma quality improvement programs to reflect and demonstrate continuous quality improvement in the delivery of trauma care. These inter-hospital programs will be multi-disciplinary and function within the framework of the hospital operating system. At a minimum, death reviews will take place for all trauma deaths occurring in the hospital. Using the American College of Surgeon's criteria, all deaths will be categorized. Some regional quality improvement element may come into play for deaths deemed "potentially or frankly preventable".

Consistent with WAC 246-976-910 Prehospital agencies are invited and encouraged to participate in the regional quality improvement program. The MPDs will take the lead in developing guidelines for agency quality improvement. Advance life support transport agencies are planned to come on board first and may assist in helping volunteer agencies in their respective counties. Continuing trauma education is planned to be the focus of the regional quality improvement program. Regional forums for education are being developed to facilitate system improvement within the region.

Submitted by:

_____ _____

Dave Hammers, Council Chair Date

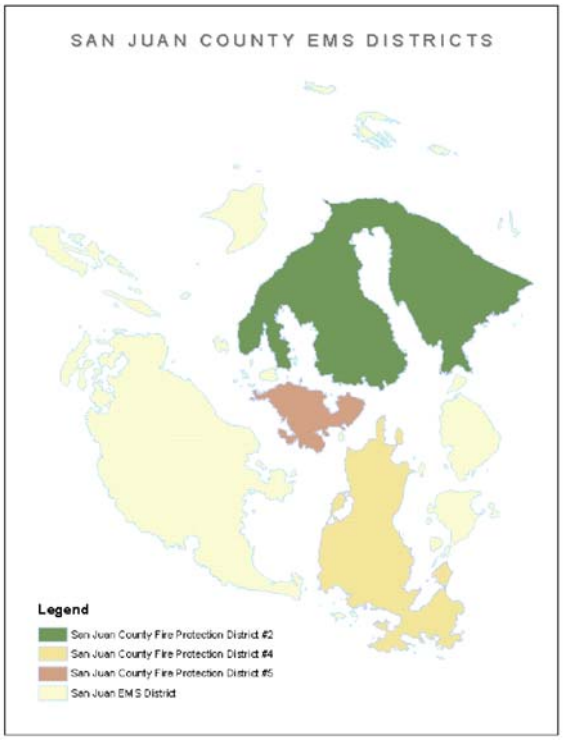
_____ _____

Bonnie Robinson, Executive Director Date

--Appendix A--

SAN JUAN COUNTY VERIFIED EMS PROVIDERS

Verified Aid Vehicle - BLS	**Verified Ambulance - ALS**	**Verified Ambulance - BLS**
--Shaw Island Fire District 5, Shaw Island	--San Juan County Fire District #2, East Sound, Orcas Island --San Juan Island EMS, Friday Harbor, San Juan Island	--San Juan County Fire District #4, Lopez Island



--Appendix A--

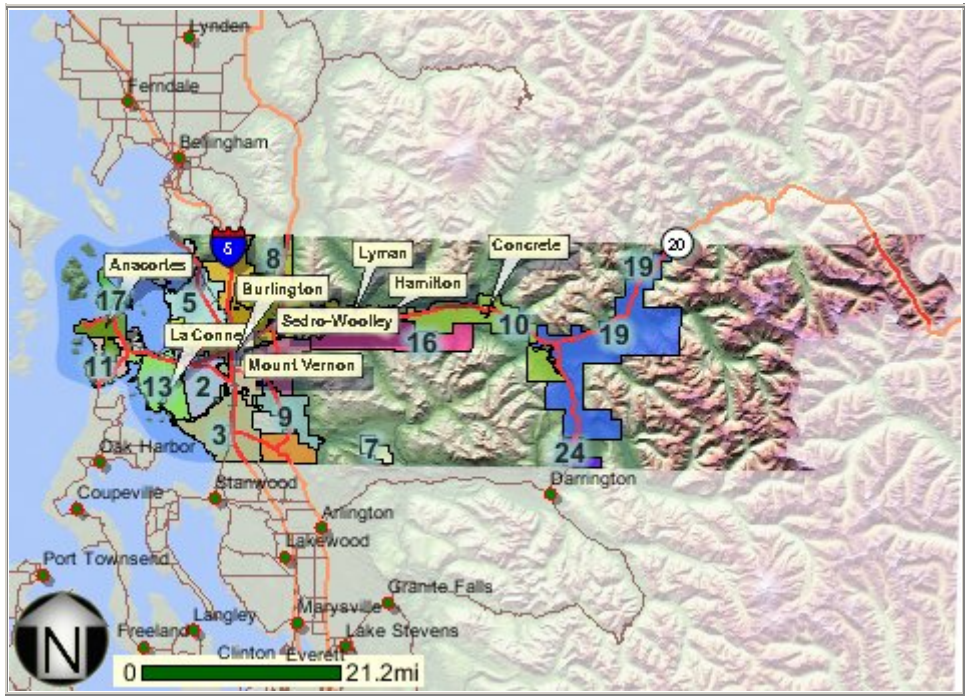
ISLAND COUNTY VERIFIED EMS PROVIDERS

Verified Aid Vehicle - BLS	**Verified Ambulance - ALS**	**Verified Ambulance - BLS**
--Island County FPD#2, Oak Harbor --Island County FPD#3, Langley --Central Whidbey Island Fire & Rescue, Coupeville --Oak Harbor Fire Department, Oak Harbor	--Whidbey General Hospital Ambulance, Coupeville	--Island County Fire & Rescue, Camano Island --Navel Hospital Oak Harbor EMS, Oak Harbor

--Appendix A--

SKAGIT COUNTY VERIFIED EMS PROVIDERS

Verified Aid Vehicle - BLS	**Verified Aid – BLS Cont'd**	**Verified Ambulance – ALS**
--Skagit County Fire District # 1, Mount Vernon	----Skagit County Fire District #14, Burlington	--Anacortes Fire Department, Anacortes
--Skagit County Fire District #2, Mount Vernon	--Skagit County Fire District #15, Mount Vernon	--Aero-Skagit Emergency, Concrete
--Skagit County Fire District #4, Clear Lake	--Skagit County Fire District #16, Sedro Woolley	--Skagit County Medic One, Mount Vernon
--Skagit County Fire District #5, Bow	--Skagit County Fire District #17, Anacortes	
--Skagit County Fire District #7, Mount Vernon	--Skagit County Fire District #19, Rockport	**Verified Ambulance – BLS**
--Skagit County Fire District #8, Sedro Woolley	--Hamilton Fire Department, Hamilton	--Island Hospital
--Skagit County Fire District #9, Clear Lake	--La Conner Fire Department, La Conner	
--Mount Erie Fire Department, Anacortes	--Mount Vernon Fire Department, Mount Vernon	
--Skagit County Fire District #12, Mount Vernon	--Sedro Woolley Fire Department, Sedro Woolley	
--Skagit County Fire District #13, La Conner		



Skagit County Fire Districts

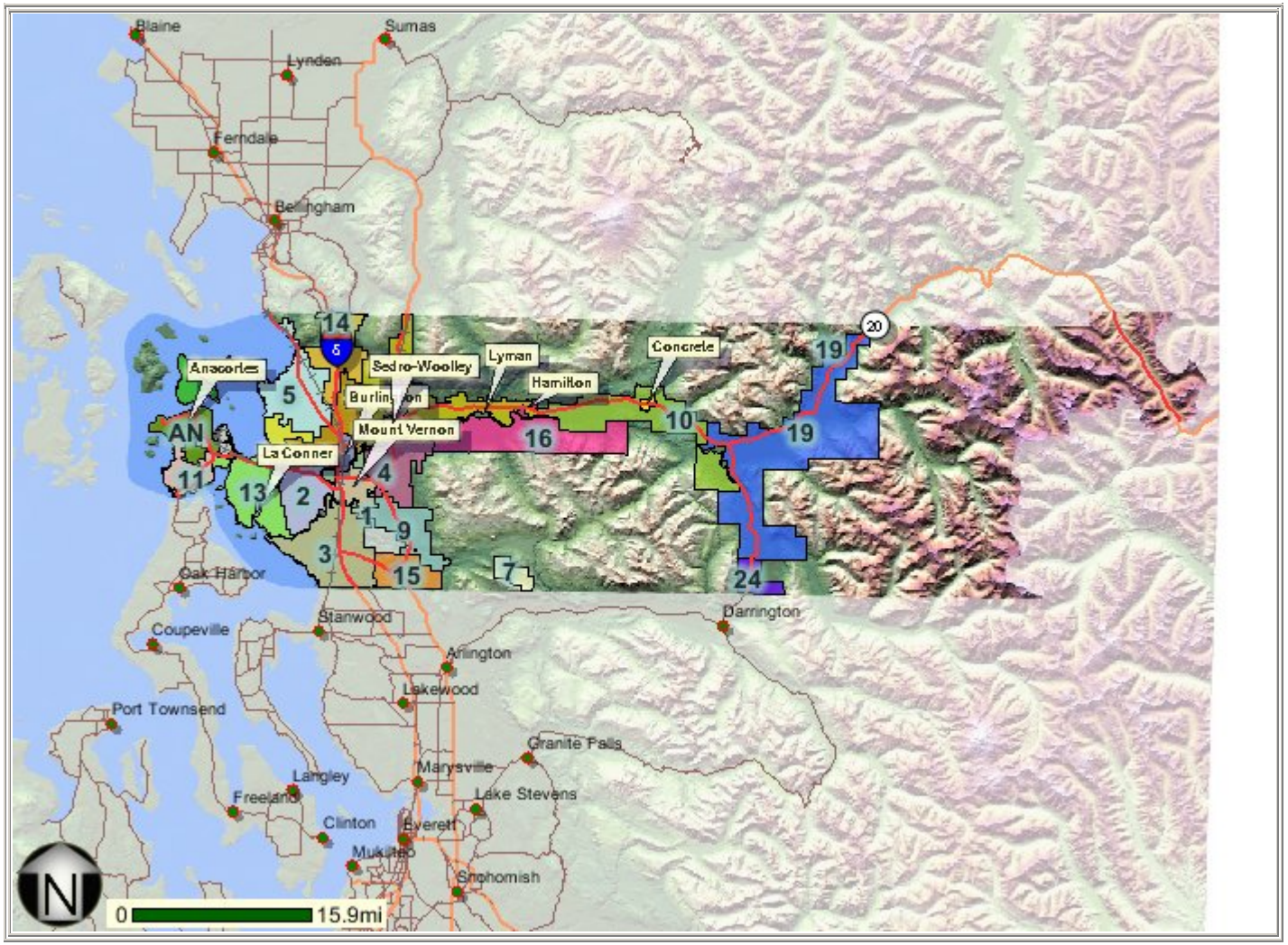
Railroads

Roads

State Roads

Fire Districts

- District 01
- District 02
- District 03
- District 04
- District 05
- District 06
- District 07
- District 08
- District 09
- District 10
- District 11
- District 12
- District 13
- District 14
- District 15
- District 16
- District 17
- District 19
- District 24
- Anacortes Fire Department
- Burlington Fire Department
- Concrete Fire Department
- Hamilton Fire Department
- LaConner Fire Department
- Mount Vernon Fire Department
- Sedro-Woolley Fire Department
- 99 - DNR, Refinery, Other

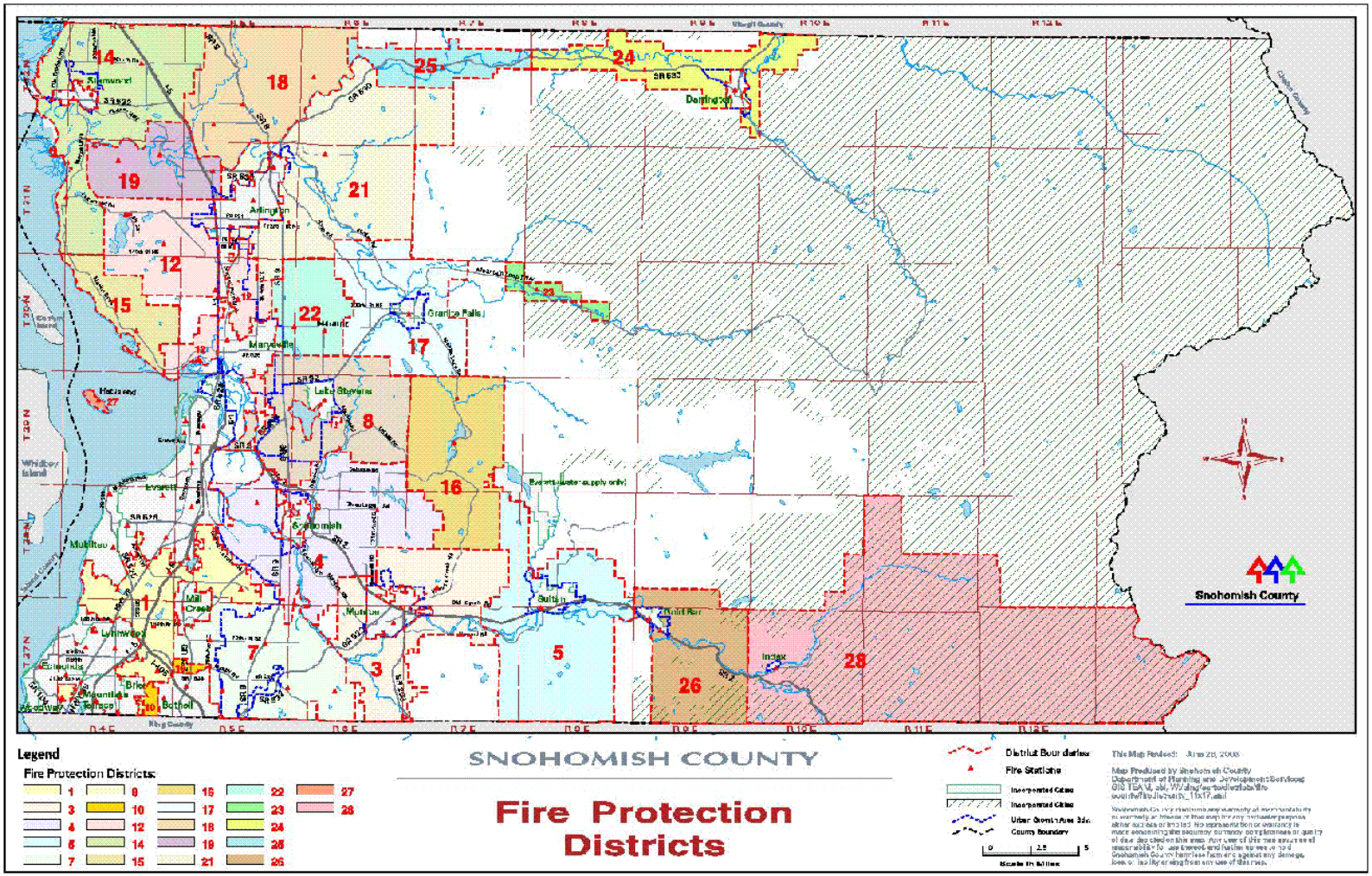


--Appendix A--

SNOHOMISH COUNTY VERIFIED EMS PROVIDERS

Verified Aid Vehicle - BLS	**Verified Ambulance - ALS**	**Verified Ambulance – BLS**
--Snohomish County Airport, Everett	--Snohomish County FPD #1, Everett	--Snohomish County FPD #4, Snohomish
--Snohomish County FPD #15, Marysville	--Snohomish County FPD #7, Snohomish	--Snohomish County FPD #5, Sultan
--Snohomish County FPD #16, Snohomish	--Snohomish County FPD #8, Lake Stevens	--Snohomish County FPD #14, Stanwood
--Snohomish County FPD #19, Silvana	--Arlington City Fire Department, Arlington	--Snohomish County FPD #17, Granite Falls
--Snohomish County FPD #21, Arlington	--Edmonds Fire Department, Edmonds	--Snohomish County FPD #18, Arlington
--Snohomish County FPD #23. Granite Falls	--Everett Fire Department, Everett	--Snohomish County FPD #22. Arlington
--Stanwood Fire Department, Stanwood	--Lynnwood Fire Department, Lynnwood	--Snohomish County FPD #25, Arlington
--Naval Station Everett Fire Department, Everett	--Marysville Fire Department, Marysville	--Snohomish County FPD #26, Gold Bar
	--Monroe Fire District 3, Monroe	--Snohomish County FPD #27, Everett
	--Stanwood & Community Ambulance, Stanwood	--Snohomish County FPD #28, Index
		--Mt Lake Terrace Fire Department, Mt Lake Terrace
		--Darrington Ambulance, Darrington
		--Rural / Metro Ambulance, Mt Lake Terrace
		--Evergreen Speedway, Monroe
		--American Medical Response, Tukwila

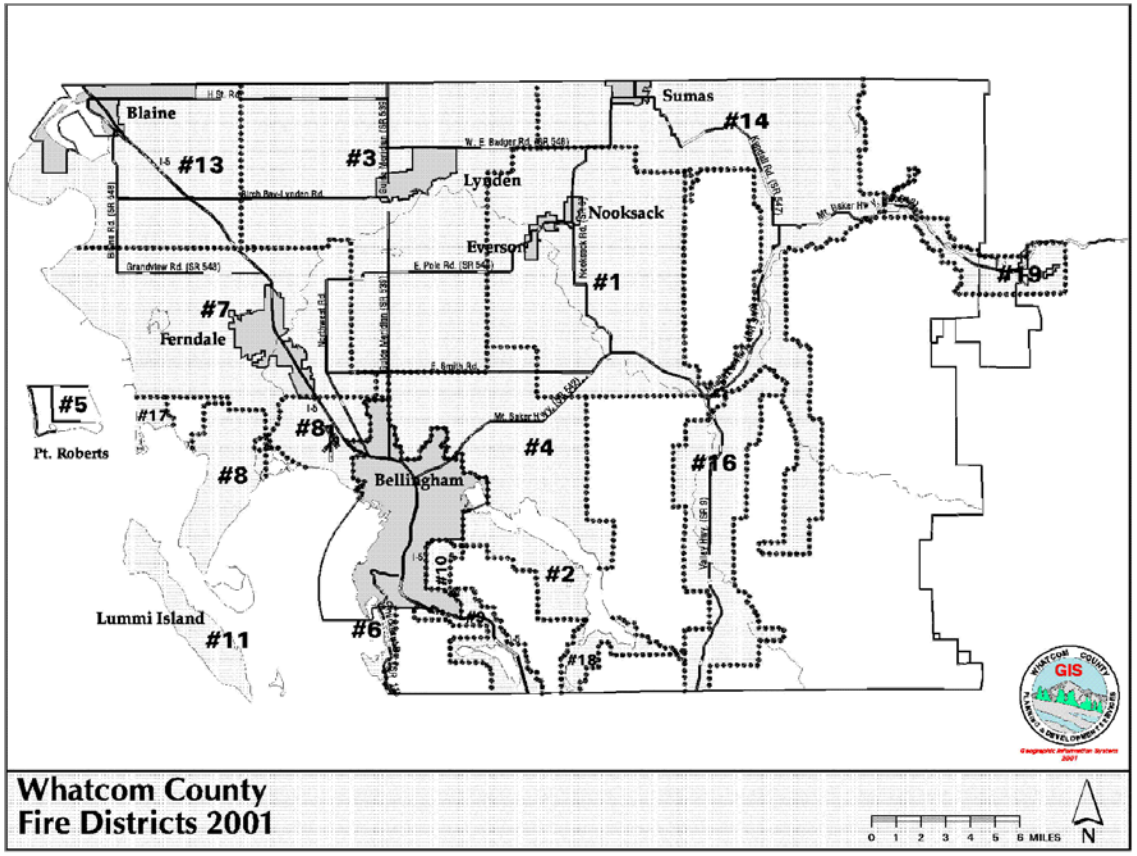
Population: 585,000 **Major urban centers:** Edmonds, Everett, Lynnwood, Marysville


SNOHOMISH COUNTY
Fire Protection Districts
Legend
Fire Protection Districts:
Snohomish County

--Appendix A--

WHATCOM COUNTY VERIFIED EMS PROVIDERS

Verified Aid Vehicle - BLS	**Verified Ambulance - ALS**	**Verified Ambulance – BLS Cont'd**
--Whatcom County FPD #7, Ferndale --Whatcom County FPD #8, Bellingham --Whatcom County FPD #10, Bellingham --Whatcom County FPD #17, Ferndale --Whatcom County FPD #18, Sedro Woolley	--Whatcom Medic 1, Bellingham Fire Department, Bellingham **Verified Ambulance - BLS** --Whatcom County FPD #1, Everson --Whatcom County FPD #2, Bellingham --Whatcom County FPD #3, Lynden --Whatcom County FPD #4, Bellingham --Whatcom County FPD #5, Point Roberts Whatcom County FPD #6, Bellingham	--Whatcom County FPD #9, Bellingham --Whatcom County FPD #11, Lummi Island --Whatcom County FPD #13, Blaine --Whatcom County FPD #14, Sumas --Whatcom County FPD #19, Glacier --Lynden Fire Department, Lynden --Cascade Ambulance Service Ferndale



--Appendix B--

North Region Native American Tribes / Councils:

Samish Indian Nation/Anacortes, Skagit County	**Tulalip Tribe/Marysville, Snohomish County**
Upper Skagit Tribe/Sedro Woolley, Skagit County	**Stillaguamish Tribe/Arlington, Snohomish County**
Swinomish Tribe/La Conner, Skagit County	**Lummi Indian Nation/Bellingham, Whatcom County**
Sauk-Suiattle Tribe/Darrington, Snohomish County	**Nooksack Tribe/Deming, Whatcom County**

--Appendix D--

NORTH REGION EMS & TRAUMA CARE SYSTEM
Operational Guidelines

PATIENT CARE PROCEDURE #1

Access to Prehospital EMS Care

OBJECTIVE

To define elements of the Regional EMS and trauma system necessary to assure rapid universal access to 911 and E-911, rapid identification of emergent situations, rapid dispatch of medical personnel, management of medical pre-arrival needs, rapid identification of incident location.

STANDARD 1

Region-wide access to emergency response shall be by 911 from all private and public telephones. Enhanced 911 is the preferred access capability, where available.

STANDARD 2

Emergency medical dispatch training for all dispatchers is the recommended standard of care. It is recommended that dispatch centers require emergency medical training for all dispatchers. The format shall be approved by the county MPD. A reference system for use by trained dispatchers shall provide dispatch decision criteria consistent with county patient care and level of care standards. Pre-arrival instructions for patient care should be a component.

STANDARD 3

Each county shall participate in a regional program of residence identification to enhance rapid EMS arrival. Establishing standards for addressing and emergency indicators are program elements.

PATIENT CARE PROCEDURE #2

Identification of Major Trauma Patients

OBJECTIVE

To define which patient injuries and severities are classified as major trauma for the purpose of:

- field triage
- hospital resource team activation
- registry inclusion
- regional quality improvement program

STANDARD 1

Major trauma patients will be identified in the initial EMS field assessment using the most current State of Washington Prehospital Trauma Triage Procedures as published by DOH-EMS and Trauma Section.

STANDARD 2

Major trauma patients will be identified by the region's hospitals for the purpose of trauma resource team activation including the trauma surgeon using the Prehospital Index (PHI) score of 4 or greater as a minimum threshold for trauma team activation for adults and children over 14 years old. For children 14 and younger, the Pediatric Trauma Score will be used and a score of 8 or less will be used for activation of the trauma resource team, ore the decision for direct air transport to a designated Level 1 Pediatric Trauma Center.

A trauma resource team activation for adult PHI score of 4 or greater and Pediatric Trauma Score of 8 or less will be described by all North Region hospitals in their designation proposal as the trauma resource team activation threshold.

STANDARD 3

Major trauma patients will be identified by the region's Prehospital services and hospitals for the purposes of state trauma registry inclusion using the trauma registry inclusion criteria as outlined in WAC 246-976-430.

STANDARD 4

Major trauma patients will be identified for the purposes of regional quality improvement as:

- patients who meet the Trauma System Activation criteria of the most current version of the State of Washington Prehospital Triage Procedures Step 1 and 2 and others per Medical Control, and
- patients who activate hospital recourse teams and those who meet the hospital trauma patient registry inclusion criteria.

STATE OF WASHINGTON
PREHOSPITAL TRAUMA TRIAGE [DESTINATION] PROCEDURES

- Prehospital triage [is based on the following 3 steps: Steps 1 and 2 require Prehospital EMS personnel to modify medical control and activate the Trauma System. Activation of the Trauma System in Step 3 is determined by medical control**

STEP 1
ASSESS VITAL SIGNS & LEVEL OF CONSCIOUSNESS

- Systolic BP <90*
- HR > 120*
  - for pediatric (< 15y) pts. use BP <90 or capillary refill >2 sec.
  - for pediatric (< 15y) pts. use HR <60 or >120
  - Respiratory Rate < 10 > 29 associated with evidence of distress and/or
  - Altered mental status

YES

1. Take patient to the highest level trauma center within 30 minutes transport time via ground or air transport according to DOH approved regional patient care procedures

**If Prehospital personnel are unable to effectively manage airway, consider rendezvous with ALS, or intermediate stop at nearest facility capable of immediate definitive airway management.

NO

STEP 2
ASSESS ANATOMY OF INJURY

- Penetrating injury of head, neck, torso, groin: OR
- Combination of burns >= 20% or involving face or airway; OR
- Amputation above wrist or ankle; OR
- Spinal cord injury; OR
- Flail chest; OR
- Two or more obvious proximal long bone fractures.

YES

2. Apply "Trauma ID Band" to patient.

NO

STEP 3
ASSESS BIOMECHANICS OF INJURY AND OTHER RISK FACTORS

- Death of same care occupant; OR
- Ejection of patient from enclosed vehicle; OR
- Falls >= 20 feet; OR
- Pedestrian hit at >= 20 mph or thrown 15 feet
- High energy transfer situation
  - Rollover
  - Motorcycle, ATV, bicycle accident
  - Extrication time of > 20 minutes
- Extremes of age < 15 or > 60
- Hostile environment (extremes of heat or cold)
- Medical illness (such as COPD, CHF, renal failure, etc.)
- Second/Third trimester pregnancy
- Gut feeling of medic

YES

CONTACT MEDICAL CONTROL FOR DESTINATION DECISION

YES

1. Take patient to the highest level trauma center within 30 minutes transport time via ground or air transport according to DOH approved regional patient care procedures

2. Apply "Trauma ID Band" to patient.

NO

NO

TRANSPORT PATIENT PER REGIONAL PATIENT CARE PROCEDURES

STATE OF WASHINGTON

PREHOSPITAL TRAUMA TRIAGE (DESTINATION) PROCEDURE

Purpose

The purpose of the Triage Procedure is to ensure that major trauma patients are transported to the most appropriate hospital facility. This procedure has been developed by the Prehospital Technical Advisory Committee (TAC), endorsed by the Governor's EMS and Trauma Care Steering Committee, and in accordance with RCW 70.168 and WAC 246-976 adopted by the Department of Health (DOH).

The procedure is described in the schematic with narrative. Its purpose is to provide the Prehospital provider, with quick identification of a major trauma victim. If the patient is a major trauma patient, that patient or patents must be taken to the highest level trauma facility within 30 minutes transport time, by either ground or air. To determine whether an injury is major trauma, the Prehospital provider shall conduct the patient assessment process according to the trauma triage procedure.

Explanation of Process

A. Any certified EMS and Trauma person can identify a major trauma patient and activate the trauma system. This may include requesting more advanced Prehospital services or aero-medical evacuation.

B. The first step (1) is to assess the vital signs and level of consciousness. The words "Altered mental status" mean anyone with an altered neurological exam ranging from completely unconscious, to someone who responds to painful stimuli only, or a verbal response which is confused, or an abnormal motor response.

The "and/or" conditions in Step 1 mean that any one of the entities listed in Step 1 can activate the trauma system.

Also, the asterix (*) means that if the airway is in jeopardy and the on-scene person cannot effectively manage the airway, the patient should be taken to the nearest medical facility or consider meeting up with an ALS unit. These factors are true regardless of the assessment of other vital signs and level of consciousness.

C. The second step (2) is to assess the anatomy of injury. The specific injuries noted require activation of the trauma system. Even in the assessment of normal vital signs or normal levels of consciousness, the presence of any of the specific anatomical injuries does require activation of the trauma system.

Please note that steps 1 and 2 also require notifying Medical Control.

D. The third step (3) for the Prehospital provider is to assess the biomechanics of the injury and address other risk factors. The conditions identified are reasons for the provider to contact and consult with Medical Control regarding the need to activate the system. They do not automatically require system activation by the Prehospital provider.

Other risk factors, coupled with the "gut feeling" of savers injury, means that Medical Control should be consulted and consideration given to transporting the patient to the nearest trauma facility.

Please note that certain burn patients (in addition to those listed on Step 2) should be considered for immediate transport or referral to a burn center/unit.

Patient Care Procedures

To the right of the attached schematic you will find the words "according to DOH approved regional patient care procedures." These procedures are developed by the regional EMS and Trauma council in conjunction with local councils. They are intended to further define how the system is to operate. They identify the level of medical care personnel who participated in the system, their roles in the system, and participation of hospital facilities in the system. They also address the issue of inter-hospital transfer, by transfer agreements for identification, and transfer of critical care patients.

In summary, the Prehospital Trauma Triage Procedures and the Regional Patent Care Procedures are intended to work in a "hand in glove" fashion to effectively address EMS and Trauma patient care needs. By functioning in this manner, these two instruments can effectively reduce morbidity and mortality.

If you have any questions on the use of either instrument, you should bring them to the attention of your local or regional EMS and Trauma council or contact 1-800-458-5281.

August 18, 1994

Pediatric Trauma Score (14 years old or less)

ASSESSMENT	SCORE		
	+ 2	**+ 1**	**- 1**
Size/Weight	Child/Adolescent > 44 lbs (> 22 kg)	Toddler 24 - 44 lbs (11 - 20 kg)	Infant < 24 lbs (< 11 kg)
Airway	Normal	Oral or Nasal Airway	Intubated
Blood Pressure	> 90 mmHg; or good peripheral pulses, perfusion	50 - 90 mmHg; or carotid/femoral pulses palpable	< 50 mmHg; or weak or no pulses
Level of Consciousness	Completely awake	Obtuned or history of loss of consciousness	Comatose/Unresponsive
Open Wound	None	Concussion, abrasion; laceration < 7 cm	Major or penetrating
Fractures	None	Single closed fracture anywhere	Open or multiple fracture
TOTALS:			
TOTAL:			☐

8 or less - Major Trauma

- Incoming via ground - Activate Trauma Code
- Incoming via MedFlight - transport to Harborview

9 or greater - Minor Trauma

- Treat in Emergency Department

PREHOSPITAL INDEX		Circle
Systolic BP	> 100	0
	86 - 100	1
	75 - 85	2
	0 - 74	5
Pulse	> 120	3
	51 - 119	0
	< 50	5
Respirations	Normal	0
	Labored/shallow	3
	< 10 min. or Intubated	5
Consciousness	Normal	0
	Confused/combative	3
	Incomprehensible words	5
Penetrating Injury to neck, chest abdomen		4

0 - 3 Minor trauma
4 - 24 Major trauma -- trauma code activation

PHI: ☐

PATIENT CARE PROCEDURE # 3

Trauma System Activation

OBJECTIVE

To define the components of trauma system activation on a regional level.

To clarify that the Prehospital component of trauma system activation includes identification of major trauma patients in the field (using the State of Washington Prehospital Trauma Triage [Destination] Procedure), and early notification and consultation with medical control, trauma center transport and data collection and submission.

To clarify that the hospital component of trauma system activation includes recognition of the critical trauma patients need to ED and surgical intervention and activation of the hospitals trauma resources, and data collection and submission.

STANDARD 1

Dispatch center personnel shall identify major trauma calls using the State of Washington Prehospital Trauma Triage [Destination] Procedure and shall dispatch verified trauma services according to the regional standard for identification of the level of medical care personnel to be dispatched to the scene of major trauma and to transport major trauma and state law. (Patient Care Procedure #4)

STANDARD 2

The response and transport services dispatched to the scene will confirm the patient meets major trauma patient parameters according to the State of Washington Prehospital Trauma Triage [Destination] Procedure.

STANDARD 3

The response and transport service personnel providing care shall place a trauma patient identification number band on all patients who activate the Trauma System according to the State of Washington Prehospital Trauma Triage [Destination] Procedure.

STANDARD 4

The transporting service will provide a patient report to medical control identifying each major trauma patient transported that meets the triage criteria. For STEP 1 patients to a 20 minute ETA notification is required to facilitate trauma surgeon arrival in the ED.

STANDARD 5

Trauma verified transport services shall take identified trauma patients who activate the Trauma System to designated trauma centers in accordance with state requirements and the regional standard *transport of patients to designated trauma centers* (Patient Care Procedure #8). (This standard will not apply until the state trauma center designation process is complete. Until then, Prehospital services will transport major trauma patients to the local facility that can provide the appropriate level of care needed by the patient.)

STANDARD 6

The response and transport services will provide patient data to the Department of Health for all patients identified as meeting the triage criteria (major trauma patients requiring transport to trauma centers) on the State of Washington Prehospital Trauma Triage [Destination] Procedure for trauma registry use. The transport service will provide written documentation of the call 95% of the time prior to leaving the ED.

STANDARD 7

On-line Medical Control at the receiving hospital will utilize the Pre-Hospital Index (PHI) trauma patient scoring system for adults and children over 14 years old to identify the *minimum threshold of activation of a hospital Trauma Team response*. For pediatric major trauma patient 14 years of age or younger, the Pediatric Trauma Score will be utilized. Trauma Team activation includes notification of the Trauma Surgeon.

STANDARD 8

Designated trauma centers will collect and submit data on major trauma patients for trauma registry use in accordance with WAC requirements.

STANDARD 9

Injured patients who **do not meet** Prehospital triage criteria for activation of the trauma system, and all another patients will be transported to local facilities based on county Prehospital patient care protocols and procedures.

PATIENT CARE PROCEDURE # 4

Identification of the Level of Medical Care Personnel to be Dispatched to the Scene of Major Trauma and to Transport Major Trauma

OBJECTIVE

To define the role of BLS and ALS services (agency and its units) in emergency response to reported major trauma incidents.

To define the role of BLS and ALS services in transporting major trauma patients.

STANDARD 1

For initial response to reported major trauma incidents the closest, designated local ALS or BLS trauma verified EMS service shall respond.

STANDARD 2

Where the closest designated local trauma verified service is BLS, a trauma verified ALS service shall respond simultaneously for all reported major trauma patient.

STANDARD 3

For transport of identified major trauma patients in Steps 1 and 2 of the State of Washington Prehospital Trauma Triage [Destination] Procedure, a designated local trauma verified ALS service shall provide transport.

STANDARD 4

For transport of identified major trauma patients in the "consult medical control portion of the State of Washington Prehospital Trauma Triage [Destination] Procedure", ALS or BLS transport shall be at the discretion of Medical Control from the receiving trauma center. In either case, the transport service shall be trauma verified, including air transport service.

STANDARD 5

For multi-casualty, major trauma incidents which exhaust resources of the local EMS system, mutual aid from BLS and ALS verified trauma services shall be activated using the county and inter-county procedures. Trauma verified ALS services shall transport the Step 1 and Step 2 patients as identified through the State of Washington Trauma Triage [Destination] Procedure tool when possible. Transport designated trauma facilities will be under the direction of Medical Control or Incident Command structure depend on the magnitude of the event.

PATIENT CARE PROCEDURE # 5

Prehospital Response Times

OBJECTIVE

To define Prehospital response times for major trauma to urban, suburban, and rural and wilderness areas in the North Region.

To define urban, suburban, rural and wilderness response areas.

STANDARD 1

Response: When responding for major trauma to an urban area, initial response units will arrive at the scene within 5 minutes of 80% of the time.

Transport: When responding for major trauma to an urban area, ALS transport units will arrive within 8 minutes of 80% of the time.

STANDARD 2

Response: When responding for major trauma to a suburban are, initial response units will arrive the scene within 5 minutes 80% of the time.

Transport: When responding for major trauma to a suburban area, ALS transport units will arrive within 10 minutes 80% of the time.

STANDARD 3

Response: When responding for major trauma to a rural area, initial response units will arrive at the scene within 12 minutes 80% of the time.

Transport: When responding for major trauma to a rural area, ALS transport units will arrive within 20 minutes 80% of the time.

STANDARD 4

Response: When responding for major trauma to a wilderness area, initial response units will arrive at the scene within 40 minutes 80% of the time.

Transport: When responding for major trauma to a wilderness area, ALS transport units will arrive within 80% of the time.

STANDARD 5

When the initial response unit is also the transport unit and there is no other initial Prehospital tiered response system in place, initial response time standards will apply to the dual purpose unit as follows:

- to urban areas 5 minutes 80% of the time
- to suburban areas 5 minutes 80% of the time
- to rural areas 12 minutes 89% of the time
- to wilderness areas 40 minutes 80% of the time

Urban Area: An incorporated area over 30,000; or
An incorporated or unincorporated area of at least 10,000 people and a population density over 2,000 people per square mile.

Suburban Area: An incorporated or unincorporated area with a population of 10,000 to 29,999 or any area with a population density of 1,000 to 2,000 people per square mile

Rural Area: An incorporated or unincorporated area with total population less than 10,000 people, or with population density of less than 1,000 people per square mile.

Wilderness Area: Any rural area not readily accessible by public or private maintained road.

PATIENT CARE PROCEDURE # 6

Activation of Air Ambulance services for Field Response to Major Trauma

OBJECTIVE

To define how helicopter activation for major field response is accomplished in the Region.

STANDARD 1

The decision to activate air ambulance service for field response to major trauma in urban and rural areas shall be made by the highest trained responder, who can be a First Responder, EMT or Paramedic, from the scene with on-line medical control consultation when needed. Where ICS is used, the commander shall be an integral part of this process.

STANDARD 2

The decision to activate air ambulance services for field response to major trauma in wilderness areas shall be made by anyone familiar with EMS in the area.

STANDARD 3

Aero-medical programs requested to respond will follow their internal policies for accepting a field mission.

PATIENT CARE PROCEDURE # 7

Transport of Patients Outside of Base Area

OBJECTIVE

To define responsibility for patient care for major trauma transports outside base coverage areas, counties and EMS Regions.

To define the procedure for transfer of responsibility during transports outside base areas, counties and EMS Regions.

STANDARD 1

Patients transferred out of any local base coverage area (from either the base hospital or the field) are initially the responsibility of local on-line medical control. Local Prehospital protocols will be followed by Prehospital personnel. Initial orders, which are consistent with local Prehospital protocols, will be obtained from base station on-line medical control.

STANDARD 2

When transport service crosses into destination jurisdiction, the destination on-line medical control will be contacted and given the following information:

- brief history
- pertinent physical findings
- summary of treatment (per protocols and per orders from base medical control)
- response to therapy
- current condition

STANDARD 3

The destination medication control physician may add further orders if they are within the capabilities of the transport personnel and consistent with the provider's local medical protocols.

STANDARD 4

The nearest trauma center base station will be contacted during transport should the patient's condition deteriorate and/or assistance is needed. The transporting unit (ground or air) may divert to the closest trauma center as dictated by the patient's condition.

STANDARD 5

Pre-hospital providers will follow local county protocols.

PATIENT CARE PROCEDURE # 8

Transport of Patients to Designated Trauma Centers

OBJECTIVES

To define the flow of major trauma patients from the incident scene to hospitals in the region and inter-regionally.

STANDARD 1

Prehospital service personnel will identify injured patients as "major trauma patients" using the state of Washington Prehospital Trauma Triage [Destination] Procedure identification tool.

STANDARD 2

Prehospital trauma patients identified as meeting "trauma System Activation" criteria (major trauma patient in Step 1 and Step 2 and anyone in Step 3 [State of Washington Prehospital Trauma Triage [Destination] Procedure Tool] by order of medical control) shall be transported to the highest level designated trauma center hospital within 30 minutes. (The 30 minutes is calculated from the time of the departure of the transport vehicle from the scene and the ETA at the designated trauma center.)

STANDARD 3

For Prehospital trauma patients identified as meeting the criteria for Consulting Medical Control, the on-line medical control physician will determine if the patient activates the trauma system. If it is determined that the trauma patient does activate the trauma system, the patient shall be taken to the highest level designated trauma center within 30 minutes. If the on-line medical control physician (the only Emergency Department physician) determines the trauma patient does not activate the trauma system the medical control physician will determine the destination of the patient, which may include non-designated hospitals. It shall be on the on-line medical control physician's responsibility to communicate the patient's trauma system activation status and the destination decision to the transporting service.

STANDARD 4

Major trauma patients with special needs, as in head injury, burns, intra-thoracic injury, and pediatric trauma will be considered for direct transport, by ground or air, to the highest level designated inter-regional trauma center with capabilities to manage the patient. Medical control will determine the patient destination. This standard recognizes longer transport times.

PATIENT CARE PROCEDURE #9

Designated Trauma Center Diversion

OBJECTIVE

To define implications for initiation of trauma center diversion (bypass) status in the Region.

To define methods for notification of initiation of trauma center diversion.

STANDARD 1

Designated trauma centers in the Region will go on diversion for receiving major trauma patients based on the facilities' inability to provide initial resuscitation, diagnostic procedures and operative intervention at the designated level of care.

STANDARD 2

Diversion will be categorized as *partial* or *total* based on the inability of the facility to manage specific types of major trauma or all traumas at the time.

Hospitals must consider diversion when:

- Surgeon is unavailable
- OR is unavailable
- CT is down if Level II
- Neurosurgeon is unavailable if Level II
- ER unable to manage more major trauma

STANDARD 3

Each designated trauma center will have a hospital approved policy to divert patient to other designated facilities based on its ability to manage each patient at a particular time. A diversion log will be kept indicating the time of diversion and the reason for partial or total diversion.

STANDARD 4

All facilities imitating diversion must provide notification to other regional trauma centers.

PATIENT CARE PROCEDURE #10

Activation of Hospital Trauma Resuscitation Team

OBJECTIVE

To define region-wide minimum activation criteria for hospital trauma resuscitation teams.

STANDARD 1

The Prehospital Index (PHI) (trauma patient severity scoring tool) will be utilized for trauma patients over 14 years of age. Patients with a PHI score of 4 or greater than 4 will automatically trigger the activation of the hospital trauma resuscitation team including response by the surgeon on trauma call.* The PHI will be calculated by the medical control physician from the Prehospital medic radio report and shall be based on the patient's initial condition (prior to Prehospital treatment). When possible, the Prehospital report will be called to the Emergency Department 20 minutes prior to the estimated time of arrival, to allow for notification and response of the surgeon on call for trauma.

Trauma patients over 14 years of age, who arrive at the ED by private car or EMS transport ad have a Prehospital Index score of 4 or greater on arrival will automatically trigger a hospital trauma resuscitation team activation including surgeon response.

STANDARD 2

The Pediatric Trauma Score (trauma patient severity scoring tool) will be utilized for pediatric trauma patients (0 to 14 years of age). Pediatric trauma patients with a Pediatric Trauma Score of 8 or less will automatically trigger the activation of the hospital trauma resuscitation team including response by the surgeon on trauma call. The Pediatric Trauma Score will be calculated by the on-line medical control physician from the Prehospital radio report and be based on the patient's initial condition (prior to Prehospital treatment). When possible, the Prehospital report will be called to the Emergency Department 20 minutes prior to the estimated time of arrival, to allow for notification response of the surgeon on call for trauma.

Pediatric trauma patients who arrive at the ED by private car or EMS transport and have a Pediatric Trauma Score of 8 or less will automatically trigger a hospital trauma resuscitation team activation including surgeon response.

STANDARD 3

A hospital may set a higher standard for activation of its hospital trauma resuscitation team.

PATIENT CARE PROCEDURE #11

Inter-facility Transfer of Major Trauma Patients

OBJECTIVE

To define the referral resources for inter-facility transfers of major trauma patients requiring a higher level of care or transfer due to situational adult and pediatric inability to provide care.

To recommend criteria for inter-facility transfer of adult and pediatric major trauma patients from receiving facility to a higher level of care.

STANDARD 1

All inter-facility transfers will be consistent with OBRA/COBRA regulations as defined by WAC.

STANDARD 2

Written transfer agreements will be in place among all facilities in the region and tertiary care facilities commonly referred to which are out of the region. A standard regional transfer agreement shall be utilized.

STANDARD 3

Level III, IV and V facilities are recommended to consider transferring the following adult and pediatric patients to Level I or II facilities for post resuscitation care:

Central Nervous System Injury D_3

- Head injury with any one of the following:
  - open, penetrating, or depressed skull fracture
  - CSF leak
  - severe coma (Glasgow Coma Score < 10)
  - deterioration on Coma Score of 2 or more points
  - lateralizing signs
- Unstable spine
- Spinal cord injury (any level)

Chest Injury D_x

- Suspected great vessel or cardiac injuries
- Major chest wall injury
- Patients who may require protracted ventilation

Pelvis Injury D_x

- Pelvic ring disruption with shock requiring more than 5 units of blood transfusion
- Evidence of continued hemorrhage
- Compound/open pelvic fracture or pelvic visceral injury

Multiple System Injury D_x

- Severe facial injury with head injury
- Chest injury with head injury
- Abdominal or pelvic injury with head injury
- Burns with head injury

Specialized Problems

- Burns > 20% BSA or involving airway
- Carbon monoxide poisoning
- Barotrauma

Secondary Deterioration (Late Sequelae)

- Patient requiring mechanical ventilation
- Sepsis
- Organ system(s) failure (deterioration in CNS, Cardiac, Pulmonary, Hepatic, Renal, or Coagulation systems)
- Osteomyelitis

STANDARD 4

All pediatric patients < 15 years who are triaged under Step 1 or Step 2 of the Prehospital triage tool or are unstable after ED resuscitation or emergent operative intervention at hospitals with general designations should be considered for immediate transfer to a Level I designated pediatric trauma center hospital.

STANDARD 5

For inter-facility transfer of critical major trauma patients, air or ground ALS transport is the standard. transport of patients out of base area, standards (Patient Care Procedure #7) shall be followed. Trauma verified services shall be used for inter-facility transfers.